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ABSTRACT

Provided as a framework for use in curriculum development are Arkansas' course content guides for the intermediate elementary grades four, five, and six. At each grade level, language arts, mathematics, reading, social studies, and science skills have been identified at three instructional levels: basic, developmental, and extensional. Basic skills are those which all students must master. They also include the skills on which Arkansas' Minimum Performance Test items are based. Developmental skills are those beyond basic which should be introduced and taught by teachers, but not necessarily mastered by all learners. Often developmental skills at one grade level are basic skills at a later grade or in an advanced course. Extensions, which stress higher order thinking, processing, and problem solving skills, suggest ways teachers can broaden student learning at a given grade level without introducing additional basic skills from subsequent grade levels. When required by the nature of the subject, skills are sequenced by grade. (RH)

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INTRODUCTION

The STANDARDS FOR ACCREDITATION OF PUBLIC SCHOOLS, adopted by the Arkansas State Board of Education, required the development of these course content guides. The Standards also required that essential skills be identified for each course taught in the public schools of Arkansas. Committees of classroom teachers, curriculum specialists, principals, superintendents, staff members from institutions of higher education and Department of Education personnel jointly identified the skills included in each of the guides.

These guides are offered as a framework on which a curriculum can be built; they should not be considered the complete (only) curriculum of a school. After adopting the guides and after careful planning, the local staff should extend them by developing teaching plans, identifying resources, selecting presentation methods and coordinating evaluative techniques with skills to be taught. From these expansions of the course content guides, a more complete curriculum guide can emerge.

Within each subject area and at each grade level, skills have been identified at three instructional levels: basic, developmental and extensions. The basic skills are those skills which all students must master. They are also the skills on which the Minimum Performance Test items are based. A comprehensive guide should exceed minimum levels of expectation. Developmental skills and extensions are also included.

Developmental skills are those skills beyond the basic level that should be introduced and taught, but not necessarily mastered by all learners. Often developmental skills at one grade level become basic skills at a later grade or in a more advanced course.

Extensions are suggested for those learners who have mastered the required basic and recommended developmental skills. Extensions stress the higher order thinking, processing and problem solving skills. These extensions suggest ways for the teacher to broaden student learning on grade level without introducing more basic skills from subsequent grade levels.

The nature of some subject areas requires sequencing of skills. In those subject areas, skills are sequenced by grade level. Sequencing in some subject areas is left to the discretion of the school district and teachers.

The Student Assessment/Minimum Performance Testing Program coordinates with the statement of basic skills in the course content guides. The Minimum Performance Test measures mastery of basic skills. Promotion from the eighth grade will depend upon mastery of the basic skills listed in the five course content guides for reading, mathematics, langauge arts, science and social studies.

No curriculum should be considered static. Updating of the guides should be a continuous process. Responses from educators will help determine when revision is needed.

The Department and the State Board of Education recognize the outstanding work of those professional educators who have contributed to the development of these guides. Without their help, this work could not have been accomplished.

Language Arts

GRADE 4

CAPITALIZATION

Basic Skills

1.1 Recognize that the pronoun I is always capitalized.
1.2 Recognize that the first word of a sentence is capitalized.
1.3 Recognize that the names of cities and states in an address are capitalized.
1.4 Recognize that the days of the weeks and months of the year are capitalized.
1.5 Recognize that the names of people are capitalized.

Developmental Skills

1.25 Capitalize the names of holidays.
1.26 Capitalize the names of cities, towns, counties, states, countries and nations.
1.27 Capitalize the names of streets, roads and highways.
1.28 Capitalize people's initials and nicknames.
1.29 Capitalize the names of pets.
1.30 Capitalize titles used with, or in place of, people's names.
1.31 Capitalize the names of lakes, rivers, mountain ranges, deserts, parks and tourist attractions.
1.32 Capitalize the names for family relationships when used in place of, or in connection with, the person's name.
1.33 Capitalize north, south, east and west when they refer to sections of the country.
1.34 Capitalize the first and last word and all other important words in titles of literary works.
1.35 Capitalize the names of schools and specific school courses.
1.36 Capitalize the names of products.
1.37 Capitalize the names of ships, planes, space ships, stars, planets and constellations.
1.38 Capitalize the first word in the salutation and closing of letters.
1.39 Capitalize the first word of a direct quotation.
1.40 Capitalize the first word in each line of a topic outline.

Extensions

1.75 Edit a given paragraph for correct capitalization.
1.76 Edit the paragraph of another student for correct capitalization.
1.77 Edit personal writing for correct capitalization.
1.78 Make a calendar including months, days of the week and holidays using correct capitalization.
1.79 Make a collage of capitalized words from media sources.

PUNCTUATION

Basic Skills

2.1 Choose the correct end punctuation (.) for a sentence that makes a statement.
2.2 Choose the correct end punctuation (?) for a sentence that asks a question.
2.3 Choose the correct punctuation (,) to separate words in a series.
2.4 Choose the correct punctuation (,) to separate the day of the week from the month.
2.5 Choose the correct punctuation (,) to separate the city from the state.

Developmental Skills

2.25 Place a period after abbreviations.
2.26 Place a period after initials.
2.27 Place a period after letters of the alphabet in an outline.
2.28 Use the comma to set off the name or term used to address someone directly.
2.29 Place the comma after a word like **yes**, **no**, **well**, **why** and **oh** at the beginning of a sentence when the word does not modify the next word.
2.30 Use commas before and after the name of a state or country when it follows the name of a city.
2.31 Use commas before and after the year when it follows the month or the month and day.
2.32 Use the comma to separate direct quotations from explanatory words unless a question mark or exclamation mark is needed.
2.33 Set off interrupters with commas.
2.34 Use the comma to set off parenthetical words, phrases or clauses from the rest of the sentence.
2.35 Place the comma after the closing of any letter.
2.36 Use quotation marks to indicate the exact words of another person.
2.37 Use closing quotation marks after a question mark or exclamation mark if the quotation is a question or an exclamation.
2.38 Use closing quotation marks before a question mark or exclamation mark if the quotation comes at the end of a sentence that is a question or exclamation.
2.39 Use quotation marks to set off the titles of songs, short stories, short poems, articles, essays, lectures, short plays and book chapters.
2.40 Indicate the omission of a letter or letters in a contraction by the use of an apostrophe.
2.41 Form the possessive of singular nouns by using the apostrophe plus **s**.
2.42 Form the possessive of plural nouns ending in **s** by using the apostrophe after the **s**.
2.43 Form the possessive of plural nouns not ending in **s** by using the apostrophe plus **s**.
2.44 Separate parallel parts of a sentence if they are subdivided by commas with a semicolon.
2.45 Place the semicolon between items in a series if the items contain internal commas.
2.46 Place the colon after the salutation of a business letter.

2.47 Use the hyphen to divide a word at the end of a line.

2.48 Use the hyphen in compound numbers.

2.49 Divide a word at the end of a line between syllables and use a hyphen at the end of a line.

2.50 Recognize that words of one syllable are not divided.

2.51 Recognize that words should not be divided so that one letter is left on a line.

2.52 Place the additional consonant with the suffix when a final consonant is doubled before a suffix.

2.53 Recognize that a person's name is never divided.

2.54 Recognize that a person's title or initials should not be separated from the name.

2.55 Write out all words except for a few common abbreviations accepted in formal writing.

2.56 Use only one period after an abbreviation at the end of a sentence.

2.57 Take dictation sentences.

Extensions

2.75 Edit a paragraph.

2.76 Edit work of peers.

2.77 Edit personal work.

2.78 Make posters to model punctuation rules.

USAGE

Basic Skills

3.1 Identify a noun.

3.2 Identify an action verb.

3.3 Identify a declarative sentence.

3.4 Identify an interrogative sentence.

3.5 Identify words that form their plurals by adding s.

Developmental Skills

3.25 Identify a common noun as a word used to name a person, place, thing or idea.

3.26 Identify a proper noun as a word used to name a particular person, place or thing.

3.27 Form the plurals of: a) nouns ending in **s**, **sh**, **ch**, **x** or **z** by adding **es** b) nouns ending in **y** preceded by a consonant by changing **y** to **i** and adding **es** c) nouns ending in **y** preceded by a vowel by adding **s** d) nouns ending in **f** or **fe** by changing **f** or **fe** to **v** and adding **es** e) other nouns ending in **f** or **fe** by adding only **s** f) some nouns by changing the vowels g) most nouns ending in **o** preceded by vowel by adding **es** h) most nouns ending in **o** preceded by a consonant by adding **s** i) a few nouns by adding **en**, **ren**.

3.28 Write the possessive form of singular and plural nouns.

3.29 Recognize that pronouns may take the place of nouns.

3.30 Identify pronouns used as the object of the verb (direct object).

3.31 Use pronouns correctly (personal, possessive, indefinite and demonstrative).

3.32 Select pronouns that agree with their antecedents.

3.33 Identify verbs (as **to be**, **helping** and **main**).

3.34 Recognize that the forms of **be** must be followed by a completer.

3.35 Use correctly the tenses of verbs: present, past, future, present and past perfect.

3.36 Write the principal parts of regular and irregular verbs.
3.37 Identify and use adjectives to modify nouns or pronouns.
3.38 Identify and use adverbs.
3.39 Write the three degrees of comparison for adverbs.
3.40 Identify and correct double negatives.
3.41 Use conjuctions to connect words, groups of words or sentences.
3.42 Use an interjection to show strong feeling.
3.43 Identify the subject and predicate as the two essential elements of a sentence (simple and complete).
3.44 Identify that the normal word order of the sentence is noun-verb.
3.45 Identify that inverted word order may exist.
3.46 Identify the subject of the sentence as a noun or pronoun.
3.47 Identify the structures that complete a form of **be** as a predicate noun, pronoun, adjective or adverb.
3.48 Select the predicate that agrees with the subject in number.
3.49 Use adjective and adverb modifiers to make a sentence clearer.
3.50 Identify the correct spelling of homophones, antonyms and synonyms.
3.51 Select the word in which affixes are added correctly.
3.52 Select the word that is spelled correctly because of a variant pronunciation.
3.53 Select the word that is spelled incorrectly because of transposed letters.
3.54 Select words spelled correctly by applying various spelling variations or rules: **ei - ie** rule; final **e** rule; final **y**; and doubling final consonant rule.
3.55 Select the correct spelling of a word containing double or silent consonants.
3.56 Select the correct speling of a word with a vowel sound represented by a vowel combination or a vowel plus **r**.
3.57 Select the correct spelling of a word containing a long vowel sound.
3.58 Select the contraction that is spelled correctly.

Extensions

3.75 Make flashcards or sentence strips of subjects and flashcards or sentence strips of predicates to combine in all possible ways.
3.76 Make posters illustrating rules.
3.77 Make posters illustrating parts of speech.
3.78 Convert the verb tense of a paragraph to another tense.
3.79 Utilize developmental skills in creative writing.
3.80 Match respelling of words with actual spelling.
3.81 Play charades with subjects and predicates.

LITERATURE

Basic Skills

4.1 Identify sequential organization.
4.2 Select simple details in a story.
4.3 Choose the main idea in a paragraph.
4.4 Match content to title.
4.5 Select the word that expresses how a character probably felt in a particular situation.
4.6 Identify an idiom (a phrase or expression whose meaning cannot be understood by the common meaning of the words).

4.7 Identify the author's purpose for writing a passage.
4.8 Identify words that indicate comparisons.
4.9 Identify when and where a story takes place (setting).
4.10 Recognize sensory words used in poetry (touch, taste, feel, smell and sight).
4.11 Choose the logical outcome of a selection.
4.12 Discriminate between fact (what can happen) and fantasy (something unreal).

Developmental Skills

4.25 Arrange in chronological order the introduction, development and conclusion of a story.
4.26 Select the main idea of a story.
4.27 Identify character traits (appearance, personality, etc.).
4.28 Identify motives of characters.
4.29 Recognize that stories contain setting, plot and characters.
4.30 List words that describe touch, taste, feel, smell and sight.
4.31 Identify cause and effect sentences.
4.32 Choose the best outcome of several possible outcomes.
4.33 Identify a fable as universally short and in narrative form.
4.34 Identify the moral of a fable.
4.35 State the plot of a fable.
4.36 Identify the characters in a fable as usually animals or inanimate objects (sometimes human).
4.37 Identify the qualities of a fairy tale (supernatural beings, repeated tellings, standard introduction and standard conclusions).
4.38 Recognize characteristics of fanciful tales (imagination and repetitions).
4.39 Identify a folk tale as a specific cultural retelling containing a hero.
4.40 Recognize that in folk literature, animals and/or inanimate objects display human traits (think and feel).
4.41 Identify an obvious simple moral of a folk tale.
4.42 Recognize that folk tales reflect the geography of a region (local color).
4.43 Recognize that a legend is a story handed down from one generation to another believed by many to be at least partially true.
4.44 Identify a legend as a type of folk story.
4.45 Recognize that stories from different lands show a universality of children's feelings.
4.46 Identify personification (giving human attributes to non-human forms).
4.47 Identify the cause in the cause/effect sentence.

Extensions

4.75 Create a picture story in sequential order.
4.76 Supply details for topics and subtopics.
4.77 Write an original title for a story (main idea).
4.78 Role play a character.
4.79 Illustrate idioms literally and write the nonliteral meaning.
4.80 Differentiate between setting (when and where), plot and characters (major and minor).
4.81 Compose poems using sensory words.
4.82 Illustrate poetry.
4.83 Role play cause/effect situations.
4.84 Write a logical ending for a given story.

4.85 Illustrate a fable.
4.86 Role play a fable.
4.87 Write a story that is factual.
4.88 Write a story that is fanciful.
4.89 Write a short tall tale.
4.90 Classify the human traits portrayed by animals in legend and fables.
4.91 Act out (role play) traditional fairy tales.
4.92 Write the moral of a folk tale.
4.93 Write limericks.
4.94 Tape favorite passages from stories for listening centers.
4.95 Make a folk tale into a play.

COMPOSITION

Basic Skills

NONE

Developmental Skills

5.25 Write four types of basic sentences.
5.26 Add descriptive words to simple sentences.
5.27 Write compound sentences.
5.28 Write detail sentences supporting a topic.
5.29 Write descriptive paragraphs.
5.30 Write one-paragraph and two-paragraph reports.
5.31 Write fictional and non fictional stories.
5.32 Write a biography.
5.33 Write narrative, lyric and short verse forms of poetry.
5.34 Write friendly letters, invitations and "thank you" notes.
5.35 Address an envelope.
5.36 Promote free writing (to be shared and appreciated but **not** graded).
5.37 Write limericks.

Extensions

5.75 Write an opinion paragraph.
5.76 Dramatize a written report or short story.
5.77 Write and illustrate a biographical booklet.
5.78 Write a poem.
5.79 Keep a journal.
5.80 Write and illustrate a story.
5.81 Write pen pals.
5.82 Write to authors and important people.
5.83 Write secret messages using symbols and diacritical markings.

STUDY SKILLS

Basic Skills

NONE

Developmental Skills

6.25 Understand that books are located in specific sections of the library.

6.26 Use simple reference books for information.

6.27 Locate facts using an encyclopedia.

6.28 Use the media of the library for leisure activities.

6.29 Use a table of contents.

Extensions

6.75 Make a table of contents.

6.76 Classify books according to biography, reference, fiction, etc.

6.77 List the basic reference books and record what information is found in each book.

Mathematics

GRADE 4

WHOLE NUMBERS NUMERATION

Basic Skills

1.1 Identify the place value of each digit in a four-digit number.

1.2 Identify the relationship between two or more four-digit numbers (greater than $>$, less than $<$, equal to $=$).

1.3 Round two two-digit numbers to the nearest ten.

1.4 Identify odd and even numbers.

Developmental Skills

1.25 Round numbers to the nearest ten or hundred.

1.26 Read and write numbers to 100,000.

1.27 Identify the place value of each digit in a five-digit number.

Extensions

1.75 Analyze whole numbers to find a new way to categorize them other than odd and even.

WHOLE NUMBERS OPERATIONS

Basic Skills

2.1 Add two or three three-digit numbers with regrouping.

2.2 Subtract three-digit numbers with regrouping.

2.3 Subtract three-digit numbers with regrouping involving zeros.

2.4 Identify the process used in solving a simple one-step reading problem in addition or subtraction.

2.5 Demonstrate mastery of multiplication facts through the nines.

2.6 Multiply a two-digit number by a one-digit number.

2.7 Demonstrate mastery of multiplication by tens.
2.8 Demonstrate mastery of division facts with dividends through 81.
2.9 Divide a three-digit number by a one-digit number without a remainder.

Developmental Skills

2.25 Add three or more four-digit numbers with regrouping.
2.26 Subtract any four-digit number with regrouping.
2.27 Solve a simple one-step reading problem using addition or subtraction.
2.28 Multiply a two-digit number by a two-digit number.
2.29 Divide a three-digit number by a one-digit number (with or without a remainder).
2.30 Divide a three-digit number by any two-digit multiple of ten.
2.31 Solve a simple one-step reading problem using multiplication or division.

Extensions

2.75 Create and compare problems involving the four basic operations using parentheses and brackets.
2.76 Explore the divisibility rules of numbers. Create a method of sharing.

RATIONAL NUMBERS

Basic Skills

3.1 Using a model having ten or less equal parts, identify a fraction for the shaded region.
3.2 Identify the numerator and denominator of a fraction.

Developmental Skills

3.25 Add fractions with like denominators.
3.26 Subtract fractions with like denominators.
3.27 Compare two fractions using a fractional model (greater than $>$, less than $<$, equal to $=$).
3.28 Find a unit fractional part of a whole number less than 50.
3.29 Solve a simple one-step reading problem using addition or subtraction of fractions with like denominators.
3.30 Identify the place value of each digit in a decimal through hundreds.
3.31 Read and write decimals through hundreds.
3.32 Add two decimals through hundreds.
3.33 Subtract decimals through hundreds.

Extensions

3.75 Create other ways to represent fractions.

MEASUREMENT

Basic Skills

4.1 Determine the value of a collection of coins and bills to $5.00.

4.2 Measure a line segment to the nearest half-inch.

4.3 Measure a line segment to the nearest centimeter.

4.4 Identify correctly the temperature as shown on a Fahrenheit or Celsius thermometer.

Developmental Skills

4.25 Identify the unit name associated with the symbols: cm, m, kg, L, C°.

4.26 Identify the unit name associated with the abbreviation: in., ft., yd., lb., F°.

4.27 Solve a simple one-step reading problem related to measurement.

4.28 Tell time to the nearest minute.

Extensions

4.75 Explore different devices used to tell time. Create a new device of your own.

4.76 Given a situation (running the 50-yard dash, playing a game, etc.) decide what type of time-telling device would be best used. Explain why.

GEOMETRY

Basic Skills

5.1 Identify models of spheres, cones, cylinders and cubes.

Developmental Skills

5.25 Identify examples of geometric shapes such as line, line segment, ray, point and parallel lines.

5.26 Identify models of rectangular prisms and pyramids.

5.27 Identify congruent figures.

5.28 Find the perimeter of triangles and quadrilaterals.

5.29 Find the area in square units by counting.

5.30 Define quadrilateral.

Extensions

5.75 Create as many shapes as possible from a given number of squares, triangles, circles, etc. Compare perimeters.

PROBABILITY AND STATISTICS

Basic Skills

6.1 Interpret a bar graph.

Developmental Skills

6.25 Read and interpret tables, charts and graphs using data relative to classroom situations.

6.26 Make predictions from tabulated data relative to classroom situations.

Extensions

6.75 Predict outcomes using the toss of a coin, roll of dice, etc.

Reading

GRADE 4

WORD RECOGNITION

Basic Skills

1.1 Determine the meaning of new words through the use of context clues.

1.2 Substitute a compound word for a phrase in a sentence.

1.3 Select the correct synonym for a given word.

1.4 Select the correct antonym for a given word.

1.5 Select the correct homonym for a given word or phrase.

1.6 Select the word or phrase that best describes the appropriate meaning of the underlined homograph in the sentence; e.g., (tear, wind).

1.7 Identify the two words that form a contraction.

1.8 Choose the correct plural form of words including those ending in y and f.

1.9 Select the correct meaning for a word with a prefix or suffix in a sentence.

1.10 Select the vocabulary word that best completes the sentence.

1.11 Select the appropriate definition for the underlined multimeaning word in a sentence.

Developmental Skills

1.25 Divide words into syllables using VC/CV, V/CV and VC/V patterns.

1.26 Complete analogies using the vocabulary at this instructional level.

1.27 Utilize the pronunciation key in a glossary and/or dictionary to aid in the pronunciation of unfamiliar words.

1.28 Maintain and extend fluency in oral and silent reading.

1.29 Choose the correct meaning for the suffix of a word in a sentence.

1.30 Choose the correct meaning for the prefix of a word in a sentence.

Extension

1.75 Compose sentences to demonstrate the multiple meaning of a given word.

1.76 Create fun words by writing synonyms for each part of the given compound word and joining them (e.g., doghouse becomes canineabode).

1.77 Create analogies from given vocabulary words.

COMPREHENSION

Basic Skills

2.1 Identify the main idea of a paragraph.

2.2 Recall details stated in a paragraph.

2.3 Locate specific information through skimming.

2.4 Identify the sequence of events in a selection.

2.5 Predict a logical outcome after reading a portion of a selection.

2.6 Identify the time setting within a selection.

2.7 Identify the place setting within a selection.

2.8 Distinguish between fiction and nonfiction.

2.9 Distinguish between fact and opinion.

2.10 Select the word or phrase that best describes the emotion or mood of a character.

2.11 Identify a cause and effect relationship within a given selection.

Developmental Skills

2.25 Recognize implied ideas.

2.26 Recognize words used to appeal to one or more of the five senses.

2.27 Describe the emotion expressed in a passage.

2.28 Recognize and understand figurative language: simile - a comparison using like or as; metaphor - a comparison without like or as; idiom - a phrase or expression whose meaning cannot be understood from the common meaning of the words.

2.29 Recognize personification - the giving of human qualities to nonhuman things.

2.30 Read books for pleasure.

2.31 Participate in choral reading activities.

2.32 Select the correct meaning of a statement by appropriately interpreting the punctuation marks.

2.33 Identify literal meaning of figurative language.

2.34 Identify the word(s) to which a pronoun or adverb refers.

2.35 Interpret the use of an apostrophe in a given sentence.

2.36 Determine the author's purpose for a given passage.

2.37 Distinguish between the topic and main idea of a paragraph.

2.38 Identify the topic sentence and supporting details within a paragraph.

2.39 Select the correct sequence of at least three given statements after reading a passage.

2.40 Practice sustained silent reading at independent level.

Extensions

2.75 Evaluate advertisements and articles for propaganda or bias.

2.76 Create types of literature (e.g., novel, short story, drama, mystery, diary, poetry).

2.77 Distinguish between realism and fantasy.

2.78 Distinguish between types of fiction (e.g., realistic, historical, biographical and science fiction; myths, fables, folklore and fairy tales).

2.79 Identify the elements of a story: plot, climax, setting and character traits.

2.80 Compose sentences demonstrating alliteration

2.81 Dramatize a reading selection.

2.82 Share a story through art media.

2.83 Evaluate the author's use of humor.

2.84 Determine causes when given an effect.

2.85 Write facts and opinions about stories and advertisements.

2.86 Interpret cartoons.

2.87 Write captions for pictures.

2.88 Write directions in sequence.

2.89 Illustrate and draw the details given in a descriptive paragraph.

STUDY SKILLS

Basic Skills

3.1 Locate information using a title page, table of contents, glossary or index.

3.2 Indicate the correct resource material to locate specific information in a dictionary, encyclopedia or other sources.

3.3 Alphabetize a list of words to the third letter.

3.4 Use guide words to locate entry words.

3.5 Locate information using a dictionary, encyclopedia or telephone directory.

3.6 Interpret maps, charts, tables and graphs.

3.7 Follow written directions.

Developmental Skills

3.25 Locate information in a newspaper and magazine.

3.26 Interpret diagrams, illustrations and cartoons.

3.27 Outline through main topic and subtopic.

Extensions

3.75 Draw a map with a legend.

3.76 Create advertisements for the classified section of a newspaper or magazine.

3.77 Interpret orally a newspaper or magazine article.

3.78 Read and locate information independently.

LISTENING

Basic Skills

4.1 Identify the main idea after listening to a selection.

4.2 Recall details after listening to a selection.

4.3 Arrange the events in sequence after listening to a selection.

4.4 Evaluate a spoken statement as fact or opinion.

Developmental Skills

4.25 Listen for accented syllables in words.

4.26 Follow a four-step series of oral direction in sequence.

4.27 Write dictated sentences.

4.28 Repeat or write a series of letters or numbers (up to eight) after hearing them once.

4.29 Apply listening skills in the classroom situation by maintaining eye contact with the speaker, keeping hands and mouth still, and attending to the speaker.

Extensions

4.75 Identify an oral sentence as a statement, question, command or exclamation.

4.76 Determine mood when listening to prose and poetry.

4.77 Determine the author's purpose when listening to a selection.

4.78 Complete an open-ended story.

4.79 Identify dialects from other geographical areas.

ORAL COMMUNICATION

Basic Skills

5.1 Tell a story in chronological order.

5.2 Introduce others properly.

Developmental Skills

5.25 Participate in choral reading.

5.26 Change meaning by changing voice inflection and tone.

5.27 Speak in standard English.

5.28 Practice social courtesies in discussions and conversations.

Extensions

5.75 Organize materials for a presentation.

5.76 Present a short speech using notes.

5.77 Participate in creative oral activities such as role play, pantomime, impromptu speeches, debates or other dramatic activities.

Social Studies

GRADE 4

CULTURES

Basic Skills

1.1 Identify the basic needs shared by people living in different environmental regions of the world (food, clothing, shelter).

1.2 Identify differences among people living in various environmental regions (ways of meeting basic needs, tools, ideas, language, behavior, social institutions).

1.3 Identify the social institutions that all cultures form (family, education, religion, economy, government).

1.4 Identify similarities among various groups within a pluralistic society (common language, government, technology and nationalism, or pride in country).

1.5 Identify differences among various groups within a pluralistic society (ways of meeting basic needs, tools, attitudes, values and beliefs, customs).

1.6 Define: value, attitude, belief, prejudice, discrimination, social institution, society, pluralistic society, culture, ethnic, immigrant, technology.

Developmental Skills

1.25 Recognize that different cultures satisfy their basic needs for food, clothing and shelter in diverse ways.

1.26 Identify reasons for cultural similarities among people living in various environmental regions of the world (geography, climate, historical accident or heritage, technological advances, especially in the media).

1.27 Identify reasons for cultural differences among people living in various environmental regions of the world (geography, climate, historical accident, heritage).

1.28 Identify conditions and events that slow down the process of social and cultural change (physical or social isolation, restricted information, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.29 Identify conditions and events that speed up the process of social and cultural change (geographic location, natural and human resources, multicultural contacts, changing technology, information dissemination, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.30 Identify problems of prejudice and discrimination associated with race, sex and ethnic origin.

Extensions

1.75 Demonstrate knowledge and understanding of cultural similarities and differences through discussion, writing, art, music, drama, dance, simulation activities, comparisons, etc.

1.76 Understand and explain how geographic and climatic conditions, historical events, heritage and technological advances create cultural similarities and differences.

1.77 Apply problem-solving strategies to current problems of society (e.g., prejudice, discrimination, poverty, crime, and educational and family weaknesses).

1.78 Explain how such factors as geographic location, natural and human resources, technology, information, attitudes, values, beliefs, laws, government policies, economic conditions, disasters and war impede or facilitate social change.

GOVERNMENT

Basic Skills

2.1 Define rights and liberties.

2.2 Give reasons for rules or laws in the family, classroom, school and community. (Rules and laws establish and maintain order by putting limits on personal behavior and on the behavior of certain groups and institutions.)

2.3 Define leader, and identify leaders in the family, classroom, school and community (e.g., parent or guardian, teacher, student, principal, mayor, citizen).

2.4 Explain why governments exist (to keep order, to provide services, to provide for the country's defense).

2.5 Define: rules, citizenship, government, democracy.

Developmental Skills

2.25 Recognize the rights of others.

2.26 Define responsibility and identify responsibilities of members of a family, classroom or community.

2.27 Explain the relationship between rights and responsibilities.

2.28 Describe the consequences for not accepting and carrying out responsibilities as a member of a family, class or community.

2.29 Describe the consequences for disobeying rules and laws.

2.30 Develop rules for a classroom.

2.31 Explain why groups need leaders (for direction, for decision-making, for an orderly society, for communication, for representation of the group, for continuity).

2.32 Identify the roles leaders play in a group (decision-maker, communicator, facilitator, representative, focal point, symbol, etc.).

2.33 Identify the different forms that governments take (e.g., democracy, party-rule/communism, monarchy, dictatorship).

Extensions

2.75 Compare the rights and responsibilities of two groups (e.g., adults vs. children, citizens vs. aliens, prisoners vs. free citizens).

2.76 Analyze reasons for not accepting and carrying out responsibilities as a member of a family, class or community.

2.77 Give reasons for rules and laws in a nation or in the world.

2.78 Predict the consequences of not having rules and laws.

2.79 List the responsibilities any leader has.

2.80 Identify the qualifications of a good leader and explain the importance of each qualification.

2.81 Explain how the personal qualifications of potential leaders influence the choice of a leader.

2.82 Analyze reasons why different forms of government develop.

ECONOMICS AND RELATED AREAS

Basic Skills

3.1 Identify elements influencing choices made by an individual (costs, benefits, consequences).

3.2 Define environmental problem and give examples of environmental problems (pollution, depletion, erosion, etc.).

3.3 Define careers and distinguish between career choices and career opportunities.

3.4 Define: costs, benefits, consequences, scarcity, unlimited wants, limited resources, natural resources, environment, pollution, depletion, erosion, rural, suburban, urban.

Developmental Skills

3.25 Identify the factors of production (human resources, or labor; natural resources; capital resources, or tools and machines).

3.26 Give reasons for environmental problems (e.g., Industrial societies disrupt natural cycles. Population growth is too rapid in some regions.).

3.27 Give examples of career choices.

Extensions

3.75 Explain the relationship among the elements influencing economic choices made by an individual or family.

3.76 Explore ways an individual might work toward solving an environmental problem.

3.77 Analyze the effects of stereotyping on opportunities and career choices.

REFERENCE SKILLS

Basic Skills

4.1 Recognize that maps, globes, atlases, glossaries, almanacs and dictionaries are reference materials.

4.2 Recognize tables, graphs, charts, etc. as additional sources of information.

4.3 Explain the purpose of a time line.

4.4 Recognize maps as symbols for parts of the earth's surface.

4.5 Identify north, south, east and west on a map.

4.6 Recognize that scales are used to show distance between places on a map or globe.

4.7 Recognize that different maps may use different scales.

4.8 Name the continents and oceans of the world.

4.9 Identify the four hemispheres of the world.

4.10 Recognize that life in a geographic region is affected by landforms, climate, natural resources, etc.

4.11 Recognize that time is different in different parts of the world.

4.12 Identify the time zone in which we live.

4.13 Define: atlas, almanac, glossary, scale, time zone, time line, mountain, plains, plateau, river, lake, peninsula, island, continent, ocean, equator, hemisphere, geographic region, natural resource, city, nation.

Developmental Skills

4.25 Identify kinds of information found on maps and globes and in atlases, glossaries, encyclopedias and almanacs.

4.26 Read simple tables, charts, circle graphs and bar graphs.

4.27 Use a time line to gain information.

4.28 Given specific events and dates, construct a time line.

4.29 Interpret the use of color on a map.

4.30 Use compass directions to locate places on a map in relation to other places.
4.31 Relate known distances between familiar places with those shown on a map.
4.32 Use a grid system to locate places or symbols on a simple map or drawing.
4.33 Locate the continents and oceans of the world on a map.
4.34 Associate continents and oceans of the world with the appropriate hemispheres.
4.35 Identify the time zones of the continental United States.

Extensions

4.75 Use two or more types of reference materials to produce a report.
4.76 Compare information gained from reading tables, graphs and charts.
4.77 Organize information into chart, graph or table form.

INTRODUCTION

The STANDARDS FOR ACCREDITATION OF PUBLIC SCHOOLS, adopted by the Arkansas State Board of Education, required the development of these course content guides. The Standards also required that essential skills be identified for each course taught in the public schools of Arkansas. Committees of classroom teachers, curriculum specialists, principals, superintendents, staff members from institutions of higher education and Department of Education personnel jointly identified the skills included in each of the guides.

These guides are offered as a framework on which a curriculum can be built; they should not be considered the complete (only) curriculum of a school. After adopting the guides and after careful planning, the local staff should extend them by developing teaching plans, identifying resources, selecting presentation methods and coordinating evaluative techniques with skills to be taught. From these expansions of the course content guides, a more complete curriculum guide can emerge.

Within each subject area and at each grade level, skills have been identified at three instructional levels: basic, developmental and extensions. The basic skills are those skills which all students must master. They are also the skills on which the Minimum Performance Test items are based. A comprehensive guide should exceed minimum levels of expectation. Developmental skills and extensions are also included.

Developmental skills are those skills beyond the basic level that should be introduced and taught, but not necessarily mastered by all learners. Often developmental skills at one grade level become basic skills at a later grade or in a more advanced course.

Extensions are suggested for those learners who have mastered the required basic and recommended developmental skills. Extensions stress the higher order thinking, processing and problem solving skills. These extensions suggest ways for the teacher to broaden student learning on grade level without introducing more basic skills from subsequent grade levels.

The nature of some subject areas requires sequencing of skills. In those subject areas, skills are sequenced by grade level. Sequencing in some subject areas is left to the discretion of the school district and teachers.

The Student Assessment Minimum Performance Testing Program coordinates with the statement of basic skills in the course content guides. The Minimum Performance Test measures mastery of basic skills. Promotion from the eighth grade will depend upon mastery of the basic skills listed in the five course content guides for reading, mathematics, langauge arts, science and social studies.

No curriculum should be considered static. Updating of the guides should be a continuous process. Responses from educators will help determine when revision is needed.

The Department and the State Board of Education recognize the outstanding work of those professional educators who have contributed to the development of these guides. Without their help, this work could not have been accomplished.

Language Arts

GRADE 5

CAPITALIZATION

Basic Skills

1.1 Recognize that the names of holidays are capitalized.
1.2 Recognize that the names of streets, roads and highways are capitalized.
1.3 Recognize that people's initials and nicknames are capitalized.
1.4 Recognize that the names of pets are capitalized.

Developmental Skills

1.25 Capitalize the names of cities, towns, counties, states, countries and nations.
1.26 Capitalize titles used with or in place of people's names.
1.27 Capitalize lakes, rivers, mountain ranges, deserts, parks and tourist attractions.
1.28 Capitalize the names for family relationships when used in place of, or in connection with, the person's name.
1.29 Capitalize north, south, east and west when they refer to sections of the country.
1.30 Capitalize the first and last word and all other important words in titles of literary works.
1.31 Capitalize the names of schools and specific school courses.
1.32 Capitalize the names of products.
1.33 Capitalize the names of ships, planes, space ships, stars, planets and constellations.
1.34 Capitalize the first word in the salutation and closing of letters.
1.35 Capitalize the first word in each line of a topic outline.
1.36 Capitalize religious preferences.
1.37 Capitalize the names of political parties, religious sects, nationalities and races.
1.38 Capitalize proper adjectives.
1.39 Capitalize the names of historical events, periods, laws, documents, conflicts and distinguished awards.

Extensions

1.75 Edit a paragraph for correct capitalization.
1.76 Edit the work of a peer for correct capitalization.

1.77 Edit personal writing for correct capitalization.
1.78 Write and edit a friendly letter for correct capitalization.
1.79 Develop a game to teach/practice for correct capitalization.
1.80 Compile a tourist guide listing points of interest in a chosen state using correct capitalization.

PUNCTUATION

Basic Skills

2.1 Choose the correct end punctuation (.) for a sentence that makes a request.
2.2 Choose the correct end punctuation (.) for a sentence that makes a command.
2.3 Choose the correct punctuation (.) for abbreviations.
2.4 Choose the correct punctuation (.) for initials.
2.5 Choose the correct punction (.) to separate words in a series.

Developmental Skills

2.25 Place an exclamation mark after a sentence that expresses strong emotion or sudden feeling.
2.26 Place a period after Roman numerals.
2.27 Place a period after Arabic numbers.
2.28 Place a period after letters of the alphabet in an outline.
2.29 Set off the name or term used to address someone directly with a comma.
2.30 Place a comma after a word like **yes**, **no**, **well**, **why** and **oh** at the beginning of a sentence when the word does not modify the next word.
2.31 Separate phrases in a series with a comma.
2.32 Use commas before and after the year when it follows the month or the month and day.
2.33 Set off nonessential appositives with a comma.
2.34 Use commas before and after the name of a state or country when it follows the name of a city.
2.35 Use a comma to separate direct quotations from explanatory words unless a question mark or exclamation mark is used.
2.36 Separate independent clauses joined by **or**, **nor**, **for**, **yet**, **and**, **but** and **so** with a comma.
2.37 Use a comma to set off interrupters and transitional words and after the closing of any letter.
2.38 Use closing quotation marks after commas and periods, but before semicolons and colons.
2.39 Use closing quotation marks after a question mark or exclamation mark if the quotation is a question or an exclamation.
2.40 Use closing quotation marks before a question mark or exclamation mark if the quotation comes at the end of a sentence that is a question or exclamation.
2.41 Use quotation marks to begin a new paragraph each time there is a change of speakers in dialogue.
2.42 Use quotation marks to set off the titles of songs, short stories, short poems, articles, essays, lectures, short plays and book chapters.
2.43 Use single quotation marks to indicate a quotation within a quotation.
2.44 Recognize that quotation marks are not used with an indirect quotation.
2.45 Indicate the omission of a letter or letters in a contraction with an apostrophe.
2.46 Form the possessive of singular nouns with the apostrophe plus **s**.
2.47 Form the possessive of plural nouns ending in **s** by placing an apostrophe plus **s**.
2.48 Form the possessive of plural nouns not ending in **s** by using the apostrophe plus **s**.
2.49 Separate parallel parts of a sentence if they are subdivided by commas with the semicolon.

2.50 Place the semicolon between items in a series if the items contain internal commas.
2.51 Place the colon before a list if the words in the list are appositives.
2.52 Place the colon after the salutation of a business letter.
2.53 Use the colon to introduce a long quotation.
2.54 Use the colon to introduce a formal statement, question, etc.
2.55 Use the hyphen to divide a word at the end of a line.
2.56 Use the hyphen in compound numbers.
2.57 Divide a word at the end of a line between syllables only and use a hyphen at the end of a line.
2.58 Recognize that words of one syllable are not divided.
2.59 Recognize that words should not be divided so that one letter is set off on a line.
2.60 Place the additional consonant with the suffix when a final consonant is doubled before a suffix.
2.61 Recognize that a person's name is never divided.
2.62 Recognize that a person's title or initials should not be separated from the name.
2.63 Write out all words except for a few common abbreviations accepted in formal writing.
2.64 Use only one period after an abbreviation at the end of a sentence.
2.65 Write dictation sentences in spelling.

Extensions

2.75 Edit work of self and others.
2.76 Make a bulletin board illustrating punctuation rules.
2.77 Make a punctuation game.
2.78 Use punctuation to increase the quality of the student's work.

USAGE

Basic Skills

3.1 Identify a common noun as a word used to name a person, place, thing or idea.
3.2 Identify a proper noun as a word used to name a particular person, place or thing.
3.3 Identify the simple subject of a sentence as a noun or pronoun.
3.4 Identify and write the four basic types of sentences.
3.5 Identify and use adjectives.
3.6 Identify pronouns.
3.7 Identify words that form their plurals by adding **s** and **es**.
3.8 Identify verbs (action and to be).

Developmental Skills

3.25 Form the plurals of: (a) nouns ending in **y** preceded by a consonant by changing **y** to **i** and adding **es**; (b) some nouns ending in **f** or **fe** by changing **f** or **fe** to **v** and adding **es**; (c) nouns ending in **y** preceded by a vowel by adding **s**; (d) other nouns ending in **f** or **fe** by adding only **s**; (e) some nouns by changing the vowels; (f) most nouns ending in **o** preceded by a consonant by adding **es**; (g) most nouns ending in **o** preceded by a vowel by adding **s**; (h) of a few nouns by adding **en**, **ren**; and (i) nouns ending in **ful** by adding **s** to the end.
3.26 Write the possessive form of singular and plural nouns.
3.27 Recognize that pronouns take the place of nouns.

3.28 Select a pronoun used as the object of the verb (direct object).
3.29 Use pronouns correctly (personal, possessive, indefinite and demonstrative).
3.30 Select the pronoun that agrees with its antecendent.
3.31 Identify verbs (helping and main).
3.32 Use correctly the tenses of verbs: present, past, present perfect, past perfect and future.
3.33 Write the principal parts of regular and irregular verbs.
3.34 Identify and use adjectives to modify a noun or pronoun.
3.35 Write the three degrees of comparison for adjectives.
3.36 Identify the three most common adjectives also referred to as articles (a, an, the).
3.37 Identify and select adverbs.
3.38 Write the three degrees of comparison for adverbs.
3.39 Identify and correct double negatives.
3.40 Use a conjunction to connect words, groups of words and sentences.
3.41 Use an interjection to show strong feeling.
3.42 Identify the subject and predicate as the two essential elements of a sentence (simple and complete).
3.43 Identify that the normal word order of the sentence is noun-verb.
3.44 Recognize that inverted word order may exist.
3.45 Recognize that the subject may sometimes be omitted.
3.46 Identify the structure that completes a form of "be" as a predicate noun, pronoun, adjective or adverb.
3.47 Select the predicate that agrees with the subject in number.
3.48 Use adjective and adverb modifiers to expand the meaning of a sentence.
3.49 Identify the correct spelling of homophones, antonyms and synonyms.
3.50 Select the word to which affixes are added correctly.
3.51 Select the word that is spelled correctly even though there is variant pronunciation.
3.52 Select words spelled correctly by applying various spelling variations of rules: (a) **ei** - **ie** rule; (b) final **e** rule; (c) final **y**; and (d) doubling final consonant rule.
3.53 Select the correct spelling of a word containing double or silent consonants.
3.54 Select the correct spelling of a word with a vowel sound represented by a vowel combination or a vowel plus **r**.
3.55 Select the correct spelling of a word containing a long vowel sound.
3.56 Select the contraction that is spelled correctly.

Extensions

3.75 List local expressions which are not considered formal English.
3.76 List words which can be used as either nouns or verbs.
3.77 Edit recorded speech (self and others) for correct usage.
3.78 Dramatize correct and incorrect usage.
3.79 Edit literature, television and print for usage errors.

LITERATURE

Basic Skills

4.1 Identify sequential organization.
4.2 Select simple details in a story.

4.3 Choose the main idea in a selection.

4.4 Identify inferred emotions of characters.

4.5 Identify motives of characters.

4.6 Identify an idiom (a phrase or expression whose meaning cannot be understood by the common meaning of the word).

4.7 Identify the author's purpose for writing a passage.

4.8 Identify words that contrast.

4.9 Identify setting, plot and characters of a story.

4.10 Identify the major and minor characters in stories.

4.11 Identify similes in poetry.

4.12 Choose a logical ending for a selection.

4.13 Select the statement that expresses an implied idea.

4.14 Distinquish between fact and fiction.

4.15 Distinquish between fact and opinion.

Developmental Skills

4.25 Arrange in chronological order the introduction, development and conclusion of the story.

4.26 Supply details for main and subtopics.

4.27 Supply details for given topics.

4.28 Write a title for a given story.

4.29 Identify character traits (appearance, personality, actions, thoughts and words).

4.30 Illustrate an idiom literally and write the nonliteral meaning.

4.31 Write a paragraph with a purpose (author's purpose).

4.32 Recognize that the mood is created by the setting.

4.33 Identify cause and effect.

4.34 Write a logical ending for a given story.

4.35 Differentiate between statements of certainty and probability.

4.36 Identify the characteristics of a fable as a brief narrative with a simple plot and a moral. Animals are treated as humans.

4.37 Identify the conflict between wise beast and foolish beast.

4.38 Identify a folk tale as a specific cultural retelling of a tale with a hero.

4.39 Recognize that in folk literature, animals and/or inanimate objects display human traits (think and feel).

4.40 Write factual and fanciful stories.

4.41 Recognize that folk tales reflect the geography of a region (local color).

4.42 Recognize that a legend is a story handed down from one generation to another, believed by many to be at least partially true.

4.43 Identify a legend as a type of folk story.

4.44 Recognize that stories from different lands show a universality in children's feelings.

4.45 Identify personification in fanciful tales (giving human characteristics to nonhuman forms).

4.46 Identify cause and effect.

Extensions

4.75 Illustrate a given story in sequential order for others to reconstruct.

4.76 Write a paragraph about a given main idea.

4.77 Compare characters (likenesses and differences) using: what a character says, what a character does, what other characters say about a character and what the author tells in exposition.

4.78 Describe the characteristics of a classmate by a drawing and explanation for fellow classmates to recognize.
4.79 Mimic characteristics of main characters.
4.80 Create an idiom.
4.81 List the pros and cons of a position or concept.
4.82 Indicate in a given story the setting, plot and characters.
4.83 List and interpret similes used in poetry.
4.84 Write a poem for a greeting card.
4.85 Design a cover for a poem in a card.
4.86 Role play the situation created in a cause and effect paragraph.
4.87 Create an original paragraph with an inferred conclusion.
4.88 Act out a story and have a class provide a logical ending.
4.89 Analyze devices used in fables such as exaggeration, surprise and stupidity.
4.90 Compare the character's feelings in a legend, fable or fairy tale to the reader's feelings.
4.91 Classify the human traits portrayed by animals in legends and fables.
4.92 Write a tall tale with a hero of exaggerated proportions.
4.93 Create a new ending for an old fairy tale.
4.94 Write a haiku.
4.95 Write a cinquain.
4.96 Tape favorite passages or stories for lower grades.

COMPOSITION

Basic Skills

NONE

Developmental Skills

5.25 Write four types of basic sentences.
5.26 Write simple sentences following basic patterns: (N-V, N-V-N, N-LV-N)
5.27 Add descriptive words to simple sentences.
5.28 Write compound subjects and/or compound predicates.
5.29 Write compound sentences.
5.30 Write detail sentences supporting a stated topic sentence.
5.31 Write paragraphs with details arranged chronologically, spatially or in order of importance.
5.32 Write descriptive paragraphs.
5.33 Write one-paragraph and two-paragraph reports.
5.34 Write fictional and nonfictional stories.
5.35 Write a biography.
5.36 Write narrative, lyric and short verse forms of poetry.
5.37 Write photographic essays.
5.38 Write friendly letters, invitations and "thank you" notes.
5.39 Address envelopes.
5.40 Write business letters.
5.41 Promote free writing (to be appreciated but **not** graded).
5.42 Write limericks.

Extensions

5.75 Prepare an outline.
5.76 Prepare a table of contents.
5.77 Write a play.
5.78 Write cinquains.
5.79 Write haikus.
5.80 Write poems.
5.81 Keep a journal.
5.82 Write and illustrate a story.
5.83 Write and edit a newspaper.
5.84 Write a slang dictionary.
5.85 Write secret messages using symbols and diacritical markings.

STUDY SKILLS

Basic Skills

6.1 Distinguish between fiction, nonfiction, biography and reference books.
6.2 Use simple reference books for information.

Developmental Skills

6.25 Locate materials in the library using the card catalog (author card, title card and or subject card).
6.26 Use call numbers to locate books.
6.27 Locate books by arrangement of different types.
6.28 Use reference books as tools of learning.
6.29 Select library materials for reading pleasure.

Extensions

6.75 Solve a historical problem using the library.
6.76 Reshelf books in the library.
6.77 Use one source card from the card catalog to locate the other two source cards.
6.78 Make source cards for books.

Mathematics

GRADE 5

WHOLE NUMBER NUMERATION

Basic Skills

1.1 Identify the place value of each digit in a five-digit number.
1.2 Identify the relationships between two or more five-digit numbers (greater than, less than, equal).
1.3 Round three-digit numbers to the nearest hundred.

Developmental Skills

1.25 Round numbers to the nearest 1,000.
1.26 Read and write numbers to 1,000,000.
1.27 Identify the place value of each digit in a six-digit number.

Extensions

1.75 Invent a numeration system of your own.

WHOLE NUMBERS

Basic Skills

2.1 Add three or more four-digit numbers with regrouping.
2.2 Subtract any four-digit number with regrouping.
2.3 Solve a simple one-step reading problem using addition or subtraction.
2.4 Multiply a two-digit number by a two-digit number.
2.5 Divide a three or four-digit number by a one-digit number (without a remainder).
2.6 Divide a three-digit number by a two-digit multiple of ten (with or without a remainder).
2.7 Identify the process used in solving a two-step reading problem.

Developmental Skills

2.25 Solve a two-step reading problem using addition or subtraction.
2.26 Multiply a three-digit number by a two-digit number.
2.27 Divide a three-digit number by any two-digit number (with or without a remainder).
2.28 Solve a two-step reading problem using multiplication or division.
2.29 Name a common factor of two numbers.
2.30 Name common multiples of two numbers.

Extensions

2.75 Analyze multiplication and division problems with missing digits.
2.76 Write a computer program in BASIC to perform computation.
2.77 Use a prepared microcomputer software program to practice and enter skills in computation.

RATIONAL NUMBERS

Basic Skills

3.1 Add fractions with like denominators.
3.2 Subtract fractions with like denominators.
3.3 Add mixed numbers having like denominators (without regrouping).
3.4 Subtract mixed numbers having like denominators (without regrouping).
3.5 Identify the place value of each digit in a decimal through hundreds.
3.6 Add two or more decimals through hundreds.
3.7 Subtract decimals through hundreds.

Developmental Skills

3.25 Find a common denominator of two fractions.
3.26 Determine if a fraction is in its simplest form, if not, simplify it.
3.27 Add fractions with unlike denominators.
3.28 Subtract fractions with unlike denominators.
3.29 Change a mixed number to an improper fraction and change an improper fraction to a mixed number.
3.30 Add mixed numbers having unlike denominators.
3.31 Subtract mixed numbers having like denominators with regrouping.
3.32 Subtract mixed numbers having unlike denominators.
3.33 Compare unlike fractions (greater than, less than, equal to).
3.34 Identify a mixed number as a whole number and a fraction.
3.35 Multiply two fractions and state the product in the simplest form.
3.36 Multiply a mixed number by a fraction and state the product in the simplest form.
3.37 Multiply a mixed number by a whole number or another mixed number and state the product in the simplest form.
3.38 Solve a two-step reading problem using addition, subtraction and multiplication of fractions.
3.39 Compare decimals.
3.40 Solve a two-step reading problem using addition or subtraction of decimals through hundreds.
3.41 Multiply a decimal through hundredths by a whole number.

Extensions

3.75 Use a calculator to investigate the placement of decimals in the multiplication and division. Compare with paper and pencil method and report your findings.

MEASUREMENT

Basic Skills

4.1 Measure a line segment to the nearest millimeter.

4.2 Measure a line segment to the nearest one-fourth inch.

4.3 Relate 0° degrees C and 100° degrees C to freezing and boiling temperature of water.

4.4 Relate 32° degrees F and 212° degrees F to freezing and boiling temperatures of water.

Developmental Skills

4.25 Identify the unit name associated with the symbols: mm, cm, m, km, g, kg, ml, l and C degrees.

4.26 Identify the unit name associated with the abbreviations: in., ft., yd., mi., oz., lb., qt., gal., F degrees.

4.27 Express weight in grams and kilograms.

4.28 Measure a line segment to the nearest one-fourth inch.

4.29 Tell time to the nearest minute.

4.30 Determine the value of a collection of coins and bills to $10.00.

Extensions

4.75 Investigate other monetary systems.

4.76 Research the history of the metric system, develop reasons for using or not using it and justify the decision to "go metric" in the U.S.

GEOMETRY

Basic Skills

5.1 Identify: point, line, line segment and parallel lines.

5.2 Find the perimeter of triangles and quadrilaterals.

Developmental Skills

5.25 Identify: ray, perpendicular lines, intersecting lines, angle, vertex and right angle.

5.26 Identify: center, diameter and radius of a circle.

5.27 Identify: square, trapezoid, rectangle, rhombus and parallelogram.

5.28 Identify: congruent figures and corresponding parts.

5.29 Identify lines of symmetry.

5.30 Locate and name points on a grid (ordered pairs).

5.31 Find the area of a square or rectangle.

Extensions

5.75 Create figures and designs using a straight edge and a straight edge and compass.

5.76 Given a specific perimeter, create as many figures as possible that have that perimeter.

5.77 Construct geometric figures using LOGO on microcomputer.

PROBABILITY AND STATISTICS

Basic Skills

6.1 Use a chart, graph or table to find information.

Developmental Skills

6.25 Interpret data from charts, tables and graphs.

6.26 Find the (average) mean of five (or less) two-digit numbers.

Extensions

6.75 Gather statistical data from newspapers, magazines, etc. Use more than one way to show this information.

6.76 Plan a trip to a city in a different state, gather data concerning different modes of travel (cost, time, availability, etc.) and evaluate the advantages and disadvantages of each.

Reading

GRADE 5

WORD RECOGNITION

Note: Word recognition skills for grades 4, 5 and 6 are essentially the same. The vocabulary and complexity of words will increase the level of difficulties from context clues.

Basic Skills

1.1 Determine the meaning of new words.

1.2 Select the correct antonym for a given word or phrase.

1.3 Select the correct homonym for a given word or phrase.

1.4 Select the correct synonym for a given word or phrase.

1.5 Give the word or phrase that has the same meaning as a word with a prefix or a suffix in a sentence.

1.6 Select the word of phrase that best describes the appropriate meaning of the underlined homograph in the sentence (e.g., tear, wind).

1.7 Choose the correct plural forms of words including those ending in **y** and **f**.

1.8 Select the appropriate definition for the underlined multimeaning word in the sentence.

1.9 Identify the two words that are used to form a contraction.

1.10 Select the correct compound word through usage in a sentence.

Developmental Skills

1.25 Use the pronunciation key of a glossary or dictionary to aid in the pronunciation of unfamiliar words.

1.26 Complete analogies using the vocabulary at this instructional level.

1.27 Maintain and extend fluency in oral and silent reading.

1.28 Choose the correct meaning for the suffix of a word in a sentence.

1.29 Choose the correct meaning for the prefix of a word in a sentence.

Extensions

1.75 Illustrate homonyms (e.g., sun/son, bored/board, pale/pail).

1.76 Use a thesaurus to find synonyms for a given list of words.

1.77 Participate in charades to demonstrate antonyms.

1.78 Rearrange the letters in a word to make new words (anagrams).

1.79 Use the letters in a large word to form small words of two or more letters (e.g., Connecticut: it, to, cone, net, cent, etc.).

1.80 Create a word maze.

1.81 Unscramble words to create a meaningful sentence.

COMPREHENSION

Basic Skills

2.1 Identify the main idea of a selection.

2.2 Recall details directly stated in a selection.

2.3 Locate specific information through skimming.

2.4 Identify the sequence of events in a solution.

2.5 Predict a logical outcome after reading a portion of a selection.

2.6 Identify the time setting within a selection.

2.7 Identify the place setting within a selection.

2.8 Distinguish between fact and opinion.

2.9 Distinguish between fiction and nonfiction.

2.10 Select the word or phrase that best describes the emotion or mood of a character.

2.11 Identify a cause and effect relationship within a selection.

2.12 Select the correct meaning of a statement by appropriately interpreting the punctuation marks.

Developmental Skills

2.25 Identify the elements of a story: plot, climax, setting, character traits.

2.26 Recognize and understand figurative language: simile, metaphor, idiom.

2.27 Recognize personification in a selection.

2.28 Read books for pleasure.

2.29 Participate in choral reading activities.

2.30 Recognize types of literature (e.g., novel, short story, drama, mystery, diary, poetry).

2.31 Distinguish between realism and fantasy.

2.32 Distinguish between types of fiction (e.g., realistic, historical, biographical and science fiction; myths, fables, folklore and fairy tales).

2.33 Determine the order in which events occur by using clue words in a given selection.

2.34 Select the word or phrase that best describes the meaning portrayed in figurative language.

2.35 Identify the word(s) to which the pronoun or adverb refers.

2.36 Interpret the use of an apostrophe.

2.37 Determine the author's purpose for a selection.

2.38 Distinguish between the topic and main idea of a given paragraph.

2.39 Evaluate a selection for propaganda or bias.

2.40 Identify the topic sentences and supporting details within a selection.

2.41 Select the correct sequence of four statements after reading a selection.

2.42 Practice sustained silent reading at an independent level.

Extensions

2.75 Compose sentences demonstrating alliteration.
2.76 Dramatize a reading selection.
2.77 Create a story through art.
2.78 Evaluate the author's use of humor.
2.79 Write causes when given an effect.
2.80 Write facts and opinions about stories and advertisements.
2.81 Interpret cartoons.
2.82 Write captions for pictures.
2.83 Illustrate the details of a descriptive paragraph.

STUDY SKILLS

Basic Skills

3.1 Follow written directions.
3.2 Locate information using a title page, table of contents, glossary or index.
3.3 Indicate the correct resource material to locate specific information in a dictionary, encyclopedia, atlas or other source.
3.4 Alphabetize a list of words to the third letter.
3.5 Use guide words to locate entry words.
3.6 Locate information using a dictionary, encyclopedia or telephone directory.
3.7 Interpret: maps, charts and tables, diagrams and graphs.
3.8 Outline through main topic and subtopic.

Developmental Skills

3.25 Locate information using a bibliography, card catalog, newspaper, magazine, atlas, almanac or thesaurus.
3.26 Interpret illustrations and cartoons.
3.27 Adjust reading rate to the purpose and difficulty of the material.
3.28 Extend outlining to include details.
3.29 Summarize by recalling and organizing information on note cards.
3.30 Present book reports via oral, written, pictorial, character role play and character protrayal for a day.

Extensions

3.75 Draw a map with a legend.
3.76 Create visual materials (transparencies, film strips, graphs and charts) to prove a point.
3.77 Orally interpret a newspaper article.
3.78 Share research through art (e.g., pictorial times lines and biographies, paper mache, relief and land form maps).
3.79 Create taped cassettes to prove a point.
3.80 Write an editorial for a school newspaper.

LISTENING

Basic Skills

4.1 Follow oral directions.

4.2 Evaluate a spoken statement as fact or opinion.

4.3 Identify the topic (subject) after listening to a selection.

4.4 Recall details after listening to a selection.

4.5 Sequence events after listening to a selection.

Developmental Skills

4.25 Evaluate the author's qualifications.

4.26 Summarize the content of a selection.

4.27 Identify setting (time and place) after listening to a selection.

4.28 Illustrate the story elements, characters and setting.

4.29 Interpret gestures and intonations of the speaker.

4.30 Listen for accented syllables in words.

4.31 Follow a four-step series of oral directions in sequence.

4.32 Write dictated sentences.

4.33 Repeat or write a series of letters or numbers (up to eight) hearing them once.

4.34 Apply listening skills in the classroom situation by maintaining eye contact with the speaker, keeping hands and mouth still and attending to the speaker.

4.35 Distinguish essential details from nonessential details.

4.36 Evaluate propaganda used in communication.

4.37 Identify oral sentences as statements, questions, commands or exclamations.

4.38 Determine the author's purpose when listening to a selection.

Extensions

4.75 Create an open-ended story.

4.76 Tell a story using a dialect from another geographical area.

4.77 Write notes while listening to a speech or short lecture.

ORAL COMMUNICATION

Basic Skills

5.1 Tell a story in chronological order.

5.2 Introduce others properly.

5.3 Give clear and accurate directions.

Developmental Skills

5.25 Select appropriate topics of conversation and discussion.

5.26 State the six essential points of reporting an event (who, what, where, when, why and how).

5.27 Participate in creative oral activities: panels, role play, pantomime, impromptu speeches, debates, persuasive speeches and other dramatic activities.

5.28 Change meaning by changing voice inflection and tone.

5.29 Speak in standard English.

5.30 Practice social courtesies in discussions and conversations.

5.31 Organize material for a presentation.

5.32 Present a short speech using notes.

5.33 Participate in choral readings.

5.34 Use eye contact, good posture and appropriate gestures in speaking.

5.35 Practice fluency and ease while speaking.

5.36 Adjust voice volume to the social setting.

5.37 Read or recite poetry effectively.

Extensions

5.75 Speak from an outline.

5.76 Tell an original story.

5.77 Tape and evaluate an oral presentation.

Social Studies

GRADE 5

CULTURES

Basic Skills

1.1 Identify the basic needs shared by people living in different regions of the United States or at different times in history (food, clothing, shelter).

1.2 Identify the social institutions that all cultures form (family, education, religion, economy, government).

1.3 Identify similarities among various groups within a pluralistic society (common language, government, technology and nationalism, or pride in country).

1.4 Identify differences among various groups within a pluralistic society (ways of meeting basic needs, tools, attitudes, values and beliefs, customs).

1.5 Identify problems of prejudice and discrimination associated with race, sex and ethnic origin in the United States.

1.6 Define: value, attitude, belief, prejudice, discrimination, social institution, society, pluralistic society, culture, ethnic, immigrant, technology.

Developmental Skills

1.25 Recognize that different cultures satisfy their basic needs for food, clothing and shelter in diverse ways.

1.26 Identify reasons for cultural similarities among people in the United States (geography, climate, historical accident or heritage, technological advances, especially in the media).

1.27 Identify reasons for cultural differences within the United States (geography, climate, historical accident, heritage).

1.28 Identify conditions and events that slow down the process of social and cultural change (physical or social isolation, restricted information, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.29 Identify conditions and events that speed up the process of social and cultural change (geographic location, natural and human resources, multicultural contacts, changing technology, information dissemination, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.30 Develop an understanding of how the problems of prejudice and discrimination affect housing, education, employment and group relations in the United States.

Extensions

1.75 Demonstrate knowledge and understanding of cultural similarities and differences through discussion, writing, art, music, drama, dance, simulation activities, comparisons, etc.

1.76 Understand and explain how geographic and climatic conditions, historical events, heritage and technological advances create cultural similarities and differences.

1.77 Apply problem-solving strategies to current problems of society (e.g., prejudice, discrimination, poverty, crime, and educational and family weaknesses).

1.78 Explain how such factors as geographic location, natural and human resources, technology, information, attitudes, values, beliefs, laws, government policies, disasters and war impede or facilitate social change.

GOVERNMENT

Basic Skills

2.1 List the ways we guarantee rights and liberties in the United States (rules, laws, Constitution, Bill of Rights).

2.2 Identify freedom of religion, freedom of speech and freedom of press as three of the rights and liberties guaranteed by the Bill of Rights of the United States Constitution.

2.3 Give reasons for rules and laws in the United States (to maintain order, protect individual freedoms, accomplish national goals, etc.).

2.4 Explain why groups need leaders (for direction, for decision-making, for an orderly society, for communication, for representation of the group, for continuity).

2.5 Identify the form of government in the United States (democracy).

2.6 List the three branches of the United States government (executive, legislative, judicial).

2.7 Define: rights, liberties, responsibilities, laws, democracy, constitution, president, senator, representative, candidate, executive, legislative, judicial.

Developmental Skills

2.25 Explain why the rights and liberties guaranteed by the Bill of Rights are important to United States citizens.

2.26 Identify responsibilities of citizens of the United States.

2.27 Trace the steps an idea goes through in the process of becoming a law.

2.28 List the constitutional qualifications for these national leaders: president, senator, representative.

2.29 Explain how the personal qualifications of national political candidates influence their election wins and losses.

2.30 List the steps in the election process at the national level (filing, primary process, party conventions, general election).

2.31 Relate the steps in the election process to current candidates.

2.32 Describe the functions of the three branches of the United States government.

2.33 Trace the historical development of the United States government.

Extensions

2.75 Trace the historical development of rights and liberties of the individual.

2.76 Compare the rights and liberties of the citizens of two nations.

2.77 Identify the responsibilities that individuals and nations have to others in the world.

2.78 Recognize the consequences for not accepting and executing the responsibilities of U.S. citizenship.

2.79 Compare the qualifications of past and present national leaders.

2.80 Trace the evolution of the United States election process.

2.81 Describe the process of checks and balances and how it operates among the three branches of government.

2.82 Compare the United States government to other forms of government.

ECONOMICS AND RELATED SUBJECTS

Basic Skills

3.1 Identify elements influencing economic choices made by an individual or family (costs, benefits, consequences).

3.2 Identify the factors of production (human resources, or labor, natural resources, capital resources, or tools and machines).

3.3 Identify environmental problems (e.g., pollution, depletion, erosion) and their causes.

3.4 Identify career opportunities created by technological changes.

3.5 Define: costs, benefits, consequences, scarcity, unlimited wants, limited resources, human resources, natural resources, capital resources, environment, pollution, depletion, erosion, rural, suburban, urban, economic systems, economic climate, careers.

Developmental Skills

3.25 Explain the relationship among the elements influencing economic choices made by an individual or family.

3.26 Describe possible solutions to environmental problems.

3.27 Explore changes in attitudes and describe how they affect career choices and opportunities.

Extensions

3.75 Explain how human, natural and capital resources in the United States have contributed to the economic well-being of the country.

3.76 Examine ways groups can work toward solutions to environmental problems.

3.77 Predict how future technology will affect career choices.

REFERENCE SKILLS

Basic Skills

4.1 Identify kinds of information found on maps and globes and in atlases, glossaries, encyclopedias and almanacs.

4.2 State the facts given on simple tables, charts, circle graphs and bar graphs.

4.3 State the facts given on a horizontal time line of events in United States history.

4.4 Use a legend to interpret symbols on a map.

4.5 Use the four main compass directions to locate places on a map.

4.6 Label the continents and oceans on a map of the world.

4.7 Name the seven major geographical regions of the United States (Northeast, Middle Atlantic, South, Midwest, West, Southwest and Northwest).

4.8 Recognize that geography, climate and natural resources affect life in each region of the United States.

4.9 Identify the time zones of the continental United States.

4.10 Define: atlas, almanac, glossary, table of contents, index, political cartoon, scale, map legend, latitude, longitude, time zone, time line, decade, century, mountain, plains, plateau, river, lake, bay, peninsula, continent, ocean, equator, hemisphere, natural resource.

Developmental Skills

4.25 Use tables of content and indexes to locate information in reference materials.

4.26 Interpret a table, chart, political cartoon, circle graph and bar graph.

4.27 Given a set of events in United States history, construct a time line with the events in proper order.

4.28 Use a map to gain information about events in U.S. history (e.g., a map of trails used in the Westward Movement).

4.29 Compare maps of identical places shown in different scales.
4.30 Associate continents and oceans of the world with the appropriate hemispheres.
4.31 Define latitude and longitude and distinguish between lines of latitude and lines of longitude on a map.
4.32 Compare the geography, climate, natural resources and food products of different regions of the United States.
4.33 Compare time among the different time zones of the continental United States.

Extensions

4.75 Use two or more types of reference materials to produce a report.
4.76 Construct a table, chart, circle graph or bar graph; or draw a political cartoon.
4.77 Construct a time line.
4.78 Draw a map and include a legend on it.
4.79 Determine distances between points using a scale on a map.
4.80 Recognize that parallels of latitude indicate climate zones and meridians of longitude indicate time zones.
4.81 Analyze the effect of latitude on the lives of people who live in different regions of the United States.
4.82 Calculate time changes during a trip from one part of the United States to another.

UNITED STATES HISTORY

Basic Skills

Discovery and Exploration

5.1 Recognize that Indians were the first inhabitants in what is now the United States.
5.2 Recognize that the desire to find an all-water trade route to Asia resulted in land claims for Spain, France, and England.
5.3 Locate the main areas of Spanish, French and English exploration in North America (English: East Coast; Spanish: Florida and the Southwest; French: Mississippi, Missouri and Ohio River Valleys).
5.4 Specify that the first colonies were extensions of several different European countries.
5.5 Identify Jamestown as the first successful English settlement.

Independence

5.6 Identify events leading to the War for Independence (French and Indian War, Stamp Act, Boston Massacre, Boston Tea Party, "Intolerable Acts," etc.).
5.7 Identify enduring patriotic symbols of American Independence (flag, eagle, Uncle Sam, Statue of Liberty).
5.8 Recognize that the representative form of government in the United States is called a democracy.
5.9 Identify the two major documents which form the basis of our political system (Declaration of Independence, Constitution).

Growth of the New Nation

5.10 Identify the motivations behind the Westward Movement (cheap land, "elbow room," gold, adventure, opportunity).
5.11 Identify the economic bases of the North and South (industrial North, agricultural South).
5.12 Specify that slavery existed in the South.
5.13 List three events that led to the Civil War (new states entering the Union, Compromise of 1850, **Uncle Tom's Cabin**, Kansas-Nebraska Act, Dred Scott Decision, Lincoln's election).
5.14 State the purpose of the Emancipation Proclamation (to free the slaves).
5.15 Recognize that changing technology affected industrialization of the United States after the Civil War.
5.16 Identify: Amerigo Vespucci, George Washington, Thomas Jefferson, Abraham Lincoln,1492, 1607, 1620,1776, 1861-1865, Massachusetts Bay Colony, Virginia Colony, Louisiana Purchase.

Developmental Skills

5.25 Associate areas of the United States with the Indian groups which inhabited them.
5.26 Recognize that many of our words, geographical names and customs have non-English origins.
5.27 Identify motivations behind early explorations of the New World, besides the desire to find a water route to Asia.
5.28 List the reasons for colonization of the New World.
5.29 State why the English first settled at Jamestown.
5.30 Explain why Americans were victorious in the Revolutionary War.
5.31 Identify the main ideas of the Declaration of Independence.
5.32 Describe the impact of a democratic form of government on the individual.
5.33 Discuss the functions and origins of American patriotic symbols.
5.34 Describe hardships faced by those moving west.
5.35 Explain the reasons for the Louisiana Purchase.
5.36 Explain why the South used slaves.
5.37 Discuss liberties denied to individuals by slavery.
5.38 Discuss the abolitionist movement.
5.39 State reasons for the Civil War.
5.40 Identify reasons why states joined the North or the South during the Civil War.
5.41 Describe changes that occurred as a result of the Emancipation Proclamation.
5.42 Explain how changing technology has affected industry in the United States.
5.43 Compare and contrast geographic regions of the United States (climate, natural resources, products, etc.)

Extensions

5.75 Describe the differences in life styles of Indians living in various regions of the United States.
5.76 Trace names, expressions or events back to their origins.
5.77 Discuss problems faced by early explorers.
5.78 Compare and contrast modern travel with early travel.
5.79 Analyze relationships between early explorers and original inhabitants.
5.80 Debate whether Jamestown was a good location for the first successful English settlement.
5.81 Propose reasons for regional settlement by the various European countries.
5.82 Compare the reasons colonists fought for independence with the reasons Europeans colonized the New World.
5.83 Compare freedoms of today with those gained as a result of the Revolutionary War.
5.84 Compare our government before and after the Revolutionary War.
5.85 Examine the effect that the Louisiana Purchase had on the United States.
5.86 Evaluate slavery's contribution to the economy of the South.
5.87 Contrast liberties of a freed person with those of a slave.
5.88 Compare Northern military advantages to Southern military advantages during the Civil War.
5.89 Suggest possible solutions to the slavery issue other than war.
5.90 Evaluate the effectiveness of the Emancipation Proclamation.
5.91 Predict future changes caused by advancements in technology in the United States.
5.92 Analyze the impact of geography on people's lives.

INTRODUCTION

The STANDARDS FOR ACCREDITATION OF PUBLIC SCHOOLS, adopted by the Arkansas State Board of Education, required the development of these course content guides. The Standards also required that essential skills be identified for each course taught in the public schools of Arkansas. Committees of classroom teachers, curriculum specialists, principals, superintendents, staff members from institutions of higher education and Department of Education personnel jointly identified the skills included in each of the guides.

These guides are offered as a framework on which a curriculum can be built; they should not be considered the complete (only) curriculum of a school. After adopting the guides and after careful planning, the local staff should extend them by developing teaching plans, identifying resources, selecting presentation methods and coordinating evaluative techniques with skills to be taught. From these expansions of the course content guides, a more complete curriculum guide can emerge.

Within each subject area and at each grade level, skills have been identified at three instructional levels: basic, developmental and extensions. The basic skills are those skills which all students must master. They are also the skills on which the Minimum Performance Test items are based. A comprehensive guide should exceed minimum levels of expectation. Developmental skills and extensions are also included.

Developmental skills are those skills beyond the basic level that should be introduced and taught, but not necessarily mastered by all learners. Often developmental skills at one grade level become basic skills at a later grade or in a more advanced course.

Extensions are suggested for those learners who have mastered the required basic and recommended developmental skills. Extensions stress the higher order thinking, processing and problem solving skills. These extensions suggest ways for the teacher to broaden student learning on grade level without introducing more basic skills from subsequent grade levels.

The nature of some subject areas requires sequencing of skills. In those subject areas, skills are sequenced by grade level. Sequencing in some subject areas is left to the discretion of the school district and teachers.

The Student Assessment/Minimum Performance Testing Program coordinates with the statement of basic skills in the course content guides. The Minimum Performance Test measures mastery of basic skills. Promotion from the eighth grade will depend upon mastery of the basic skills listed in the five course content guides for reading, mathematics, langauge arts, science and social studies.

No curriculum should be considered static. Updating of the guides should be a continuous process. Responses from educators will help determine when revision is needed.

The Department and the State Board of Education recognize the outstanding work of those professional educators who have contributed to the development of these guides. Without their help, this work could not have been accomplished.

Language Arts

GRADE 6

CAPITALIZATION

Basic Skills

1.1 Capitalize the first word of a sentence.
1.2 Capitalize proper nouns and adjectives.
1.3 Capitalize the pronoun I.
1.4 Capitalize the salutation and the first letter of the closing of a friendly letter.

Developmental Skills

1.25 Capitalize titles used with or in place of the names of people.
1.26 Capitalize the names of lakes, rivers, mountain ranges, deserts, parks and tourist attractions.
1.27 Capitalize the names for family relationships when used in place of or in connection with the person's name.
1.28 Capitalize north, south, east and west when they refer to sections of the country.
1.29 Capitalize the first and last word and all other important words in titles of literary works.
1.30 Capitalize the names of schools and specific school courses.
1.31 Capitalize the names of ships, planes, space ships, stars, planets and constellations.
1.32 Capitalize the first word of a direct quotation.
1.33 Capitalize the first word in each line of a topic outline.
1.34 Capitalize religious preferences.
1.35 Capitalize the names of political parties, religious sects, nationalities and races.
1.36 Capitalize proper adjectives.
1.37 Capitalize the names of historical events, periods, laws, documents, conflicts and distinguished awards.

Extensions

1.75 Edit writing of teacher, peers or self for correct capitalization.
1.76 Develop a game to teach practice captialization.
1.77 Read a selection and justify words which are capitalized.
1.78 Make a manual of capitalization rules with examples.
1.79 Compile a tourist guide of a chosen country using correct capitalization.

PUNCTUATION

Basic Skills

2.1 Choose the correct punctuation (,) to separate the year from the rest of the sentence when the year follows the month or the month and the day.

2.2 Choose the correct punctuation (,) to separate the state from the rest of the sentence when the name of the state follows the name of a city.

2.3 Choose the correct punctuation (,) to separate words in a series.

2.4 Choose the correct punctuation (') to indicate the omission of a letter or letters in a contraction.

2.5 Choose the correct punctuation (:) to be placed after the salutation of a business letter.

2.6 Choose the correct punctuation (,) after the salutation and closing of a friendly letter.

2.7 Choose the correct end punctuation (.) for a sentence (telling).

2.8 Choose the correct punctuation (.) after abbreviations of titles, days of the week and months of the year.

2.9 Choose the correct punctuation (!) to express strong emotion or sudden feeling.

Developmental Skills

2.25 Place a period at the end of a sentence that asks an indirect question.

2.26 Place a period after Roman numerals.

2.27 Place a period after Arabic numbers.

2.28 Place a period after letters of the alphabet in an outline.

2.29 Place the comma after a word like **yes**, **no**, **well**, **why** and **oh** at the beginning of a sentence when the word does not modify the next word.

2.30 Separate phrases in a series with a comma.

2.31 Set off nonessential appositives with a comma.

2.32 Use the comma to separate direct quotations from explanatory words unless a question mark or exclamation mark is used.

2.33 Set off parenthetical expressions with a comma.

2.34 Place the comma after an introductory clause or phrase containing a verb form.

2.35 Place the comma after introductory dependent clauses.

2.36 Use the comma to set off interrupters and transitional words and after the closing of any letter.

2.37 Indicate the exact words of another person with quotation marks.

2.38 Use closing quotation marks after commas and periods, but before semicolons and colons.

2.39 Use closing quotation marks after a question mark or exclamation mark if the quotation is a question or an exclamation.

2.40 Use closing quotation marks before a question mark or exclamation mark if the quotation comes at the end of a sentence that is a question or exclamation.

2.41 Use quotation marks to begin a new paragraph each time there is a change of speakers in dialogue.

2.42 Use quotation marks to indicate the titles of songs, short stories, short poems, articles, essays, lectures, short plays and book chapters.

2.43 Use single quotation marks to indicate a quotation within a quotation.

2.44 Recognize that quotation marks are not used with an indirect quotation.

2.45 Form the possessive of singular nouns with the apostrophe plus **s**.

2.46 Form the possessive of plural nouns ending in **s** with the apostrophe after the **s**.

2.47 Form the possessive of plural nouns not ending in **s** with the apostrophe plus **s**.

2.48 Form the plurals of letters, symbols, numbers and signs with the apostrophe plus **s**.

2.49 Form the possessive of indefinite pronouns with the apostrophe plus **s**.
2.50 Recognize that the possessive of personal pronouns never has an apostrophe.
2.51 Separate parallel parts of a sentence if they are subdivided by commas with a semicolon.
2.52 Place a semicolon between items in a series if the items contain internal commas.
2.53 Place a colon before a list if the words in the list are appositives.
2.54 Introduce a long quotation with the colon.
2.55 Use the colon to introduce a formal statement, question, etc.
2.56 Divide a word at the end of a line between syllables only and use a hyphen at the end of a line.
2.57 Recognize that words of one syllable are not divided.
2.58 Recognize that words should not be divided so that one letter is set off on a line.
2.59 Place the additional consonant with the suffix when a final consonant is doubled before a suffix.
2.60 Recognize that a person's name is never divided.
2.61 Recognize that a person's title or initials should not be separated from the name.
2.62 Write out all words except for a few common abbreviations accepted in formal writing.
2.63 Use only one period after an abbreviation at the end of a sentence.
2.64 Take dictation sentences in spelling.

Extensions

2.75 Edit work of self and others.
2.76 Survey a piece of literature and determine why it is punctuated as it is.
2.77 Debate and justify appropriate punctuation rules.
2.78 Make a punctuation manual or kit.
2.79 Justify the punctuation in a short newspaper article.

USAGE

Basic Skills

3.1 Identify nouns used as the subject.
3.2 Identify plurals of regular and irregular nouns.
3.3 Identify verbs as words that show action.
3.4 Identify the forms of the verb **be**.
3.5 Identify the main and helping verbs.
3.6 Identify that the forms of **be** must be followed by a completer.
3.7 Identify adjectives as words that modify.
3.8 Identify the three common adjectives also referred to as articles (**a**, **an**, **the**).
3.9 Identify the simple subject and predicate as the two essential elements of a sentence.
3.10 Recognize that the normal word order of the sentence is subject-verb.
3.11 Identify a sentence fragment and a run-on sentence.
3.12 Identify double negatives.
3.13 Identify pronouns which take the place of nouns.
3.14 Identify antecedents of pronouns.
3.15 Write the possessive form of singular and plural nouns.
3.16 Select the predicate that agrees with the subject in number.

Developmental skills

3.25 Identify nouns used as indirect objects, objects of the preposition and predicative nominatives.

3.26 Identify a common noun as a word used to name a person, place, thing or idea.

3.27 Identify a proper noun as a word used to name a particular person, place or thing.

3.28 Identify a collective noun.

3.29 Form the plurals of: (a) most nouns by adding **s**; (b) nouns ending in **s**, **sh**, **ch**, **x** or **z** by adding **es**; (c) nouns ending in **y** preceded by a consonant by changing **y** to **i** and adding **es**; (d) nouns ending in **y** preceded by a vowel by adding **s**; (e) some nouns ending in **f** or **fe** by changing **f** or **fe** to **v** and adding **es**; (f) other nouns ending in **f** or **fe** by adding only **s**; (g) some nouns by changing the vowels; (h) most nouns ending in **o** preceded by a consonant by adding **es**; (i) most nouns ending in **o** preceded by a vowel by adding **s**; and (j) a few nouns by adding **en**, or **ren**; and (k) nouns ending in **ful** by adding **s** to the end.

3.30 Select pronouns used as the object of the verb (direct object).

3.31 Use pronouns correctly (personal, possessive, indefinite and demonstrative).

3.32 Use correctly the tenses of verbs: present, past, future, present perfect and past perfect.

3.33 Identify the principal parts of regular and irregular verbs.

3.34 Identify a verb as transitive or intransitive.

3.35 Recognize the subjunctive mood.

3.36 Identify the three degrees of comparison for adjectives.

3.37 Identify adverbs.

3.38 Recognize the three degrees of comparison for adverbs.

3.39 Connect words, groups of words or sentences with a conjunction.

3.40 Use an interjection to show strong feeling.

3.41 Recognize that inverted word order may exist.

3.42 Recognize that the subject may sometimes be omitted.

3.43 Identify the structure that completes a form of **be** as a predicate noun, pronoun, adjective or adverb.

3.44 Use adjective and adverb modifiers to expand the meaning of sentences.

3.45 Write a complex sentence containing one indendent clause and one or more dependent clauses.

3.46 Identify the correct spelling of homophones, antonyms and synonyms.

3.47 Select the word in which affixes are added correctly.

3.48 Select the word that is spelled correctly even through there is variant pronunciation.

3.49 Select words spelled correctly by applying various spelling variations or rules: **ei - ie** rule; final **e** rule; final **y**; and doubling final consonant rule.

3.50 Select the correct spelling of a word containing double or silent consonants.

3.51 Select the correct spelling of a word with a vowel sound represented by a vowel combination or a vowel plus **r**.

3.52 Select the correct spelling of a word containing a long vowel sound.

3.53 Select the contraction that is spelled correctly.

Extensions

3.75 Make a game using parts of speech.

3.76 Edit recorded speech for correct usage.

3.77 Edit television, radio and newspapers for correct usage.

3.77 Compose, edit and print on a word processor.

3.79 Make posters of usage rules.

LITERATURE

Basic Skills

4.1 Identify sequential organization.

4.2 Arrange in chronological order the introduction, development and conclusion of a story (basic plot).

4.3 Select simple details in a story.

4.4 Select the main idea of a story.

4.5 Identify inferred emotions of characters.

4.6 Identify character traits (appearance, personality).

4.7 Identify an idiom (a phrase or expression whose meaning cannot be understood by the common meaning of the words).

4.8 Identify the author's purpose for writing a story.

4.9 Identify words that indicate comparison and contrast.

4.10 Identify the mood of a story.

4.11 Identify the similarities and differences among characters, setting and events.

4.12 Identify the setting of a short story using dated events, place names and vocabulary.

4.13 Identify metaphors in poetry.

4.14 Identify imagery as the representation in language of sense experience: what can be seen, heard, touched, tasted, smelled and or felt internally.

4.15 Identify cause and effect in a paragraph.

4.16 Choose a logical outcome of a story.

4.17 Select the statement that contains an implied idea.

4.18 Distinguish between fact and opinion.

4.19 Distinguish between fact and fiction.

4.20 Differentiate between statements of certainty and statements of probability.

Developmental Skills

4.25 Illustrate a given story in sequential order for others to reconstruct.

4.26 Develop an outline from given material (details).

4.27 Write a paragraph about a given main idea.

4.28 Compare characters (likenesses and differences) using: what a character says, what a character does, what other characters say about a character and what the author tells us in exposition.

4.29 Illustrate an idiom literally and write the nonliteral meaning.

4.30 Deduce the author's purpose for writing a book.

4.31 List the pros and cons of a concept or position.

4.32 Indicate in a given story the setting, plot and characters.

4.33 Classify sensory reference in specific literature as sight, hearing, touch, taste, smell or feelings.

4.34 List and interpret metaphors used in poetry.

4.35 Identify cause and effect in a short story.

4.36 Create a logical ending for an original paragraph.

4.37 Identify the characteristics of a fable as a short narrative, simple in plot, a moral taught and animals that have human characteristics.

4.38 Identify use of personification in fables.

4.39 Identify the conflict between wise beast and foolish beast in fables.

4.40 Analyze devices used in fables such as exaggeration, surprise and "stupidity."

4.41 Identify an obvious simple moral in a folk tale.

4.42 Write factual and fanciful stories.

4.43 Recognize that a tall tale is a type of folk tale containing a hero of exaggerated proportions.

4.44 Recognize that folk tales reflect the geography of a region (local color).

4.45 Recognize that a legend is a story handed down from generation to generation believed by many to be at least partially true.

4.46 Identify personification (giving human qualities to a nonhuman form).

4.47 Supply details for topics and subtopics.

4.48 Identify analogies.

Extensions

4.75 Write a story from a sequence of pictures.

4.76 Develop an outline for (or from) an original story.

4.77 Determine the main idea from paragraphs or stories of other students.

4.78 Write a short story about a given main idea.

4.79 Write a descriptive paragraph about the character traits of a classmate.

4.80 Improvise selected characteristics of a character.

4.81 Create idioms.

4.82 Write a specific story with a purpose in mind.

4.83 Create an original story using the three elements of a story (setting, plot and characters).

4.84 Publish a booklet of original poetry.

4.85 Create different roles by changing the cause or effect.

4.86 Write an original paragraph with an inferred conclusion and then give that conclusion.

4.87 Write an original fable complete with a moral.

4.88 Write a new ending and or moral for a fable.

4.89 Create an original fairy tale.

4.90 Write a "handed-down" family story as a legend.

4.91 Compare the character's feelings in a legend, fable or fairy tale to personal feelings.

4.92 Write a tall tale with a hero of exaggerated proportions.

4.93 Compare the local color of different folk tales.

4.94 Write personification for inanimate objects.

4.95 Write a haiku.

4.96 Write a cinquain.

4.97 Write analogies.

4.98 Tape passages, stories or poems for listening centers (grade level or lower).

4.99 Modernize a folk tale.

COMPOSITION

Basic Skills

5.1 Combine effectively two or more sentences.

Developmental Skills

5.25 Write four types of basic sentences.
5.26 Write simple sentences following basic patterns: (N-V, N-V-N, N-LV-N)
5.27 Add descriptive words to simple sentences.
5.28 Write compound subjects and or compound predicates.
5.29 Write compound sentences.
5.30 Write detail sentences supporting a stated topic sentence.
5.31 Write paragraphs with details arranged chronologically, spatially or in order of importance.
5.32 Write descriptive paragraphs.
5.33 Write opinion and summary paragraphs.
5.34 Write one-paragraph and two-paragraph reports.
5.35 Write three-paragraph reports.
5.36 Write fictional and nonfictional stories.
5.37 Write a biography.
5.38 Write narrative, lyric and short verse forms of poetry.
5.40 Write photographic essays.
5.41 Write friendly letters, invitations and "thank you" notes.
5.42 Address envelopes.
5.43 Write business letters.
5.44 Promote free writing (to be shared and appreciated but **not** graded).

Extensions

5.75 Write topic sentences in three positions in a paragraph: beginning, near the middle and at the end.
5.76 Compose a theme with an introduction, body and conclusion.
5.77 Gather information for a resource paper by using source cards and note cards.
5.78 Write a resource paper.
5.79 Prepare a bibliography.
5.80 Compose a paragraph discussing interesting or uninteresting portions of a literary work.
5.81 Write a play.
5.82 Write poetry (including cinquain, haiku, limerick).
5.83 Keep a journal.
5.84 Write and edit a class newspaper.
5.85 Write a slang dictionary.

STUDY SKILLS

Basic Skills

6.1 Locate information through use of the card catalog: subject, author and title card.
6.2 Locate facts listed in encyclopedias.
6.3 Use an index.
6.4 Use table of contents.

Developmental Skills

6.25 Make full use of the media resources of the library.
6.26 Use the technique of cross referencing.
6.27 Use the library for enjoyment.
6.28 Use call numbers.

Extensions

6.75 Solve a historical problem using the media center resources.
6.76 Reshelf books.
6.77 Use one source card from the card catalog to locate the other two source cards.
6.78 Classify books according to the Dewey Decimal System.
6.79 Use the **Reader's Guide**.
6.80 Write an author, title and subject card for a given book.
6.81 Make cards for an imaginary book authored by the student.

Mathematics

GRADE 6

WHOLE NUMBER NUMERATION

Basic Skills

1.1 Identify the place value of each digit in a six-digit number.
1.2 Identify the relationship between two or more six-digit numbers (greater than ( ), less than ( ), equal to ( ).
1.3 Round numbers to the nearest 1,000.
1.4 Recognize the word name for the standard numeral through hundred-thousands.
1.5 Recognize the standard numeral for the word name through hundred-thousands.

Developmental Skills

1.25 Read and write numbers to 1,000,000,000.
1.26 Identify the place value of each digit in a nine-digit number.

Extensions

1.75 Investigate and compare the history of numeration systems.
1.76 Investigate other bases and their application to today's technology.

WHOLE NUMBER OPERATIONS

Basic Skills

2.1 Add three or more five-digit numbers with regrouping.
2.2 Subtract any five-digit numbers with regrouping.
2.3 Multiply a three-digit number by a two-digit number.
2.4 Divide a three-digit number by any two-digit number (with or without remainder).

Developmental Skills

2.25 Multiply a three or more digit number by a three-digit number.
2.25 Divide a three or more digit number by any two-digit number (with or without remainder).
2.27 Name the greatest common factor of two numbers.
2.28 Name the least common multiple of two numbers.
2.29 Identify prime and composite numbers.
2.30 Solve a reading problem with more than two steps.
2.31 Estimate answers to whole number computation problems.

Extensions

2.75 Create one-and two-step reading problems.

RATIONAL NUMBERS

Basic Skills

3.1 Determine if a fraction is in simplest form and if not, simplify it.
3.2 Find the least common denominator of two fractions with denominators less than ten.
3.3 Add fractions having common denominators.
3.4 Subtract fractions having common denominators.
3.5 Change a mixed number to an improper fraction.
3.6 Change an improper fraction to a mixed number.
3.7 Identify the place value of each digit in a decimal to thousandths.
3.8 Add decimals through thousandths.
3.9 Subtract decimals through thousandths.
3.10 Multiply decimals through thousandths by a one-digit whole number.

Developmental Skills

3.25 Find the least common denominator of two fractions with denominators greater than or equal to ten.
3.26 Order fractions with denominators of ten or less.
3.27 Add and subtract fractions and or mixed numbers stating the sum or difference in simplest form.
3.28 Multiply fractions and or mixed numbers, stating the product in the simplest form.
3.29 Find the reciprocal of a fraction or whole number.
3.30 Divide a whole number by a fraction, stating the quotient in simplest form.
3.31 Divide a mixed number by a fraction, stating the quotient in simplest form.
3.32 Analyze and solve a multiple-step reading problem using addition, subtraction and multiplication of fractions and mixed numbers.
3.33 Subtract a decimal from a whole number.
3.34 Divide a decimal through thousandths by a one-or two-digit whole number (without a remainder).
3.35 Divide a decimal by a decimal.
3.36 Round decimals to the nearest whole numbers.
3.37 Analyze and solve a multiple-step reading problem using addition, subtraction, multiplication and division of decimals through thousandths.

3.38 Write a decimal in tenths or hundreths as a percent.

3.39 Write a percent as a decimal.

3.40 Write a percent as a fraction.

Extensions

3.75 Research the use of different computational methods and devices (paper, pencil, abacus, computer). a) Evaluate the efficiency of each based on input vs. output. b) Describe situations in which one method would be better than another. c) Analyze each advantage and disadvantage.

MEASUREMENT

Basic Skills

4.1 Measure a line segment using the customary unit to the nearest one-fourth inch.

4.2 Measure a line segment in metric unit to the nearest centimeter.

4.3 Tell time to the nearest minute.

4.4 Determine the value of a collection of bills and coins to $10.00.

4.5 Identify the temperature as shown on a Fahrenheit or Celsius thermometer.

Developmental Skills

4.25 Identify equivalencies within inches, feet, yards and miles (12 in. = 1 foot).

4.26 Identify equivalencies within ounces, pounds and tons.

4.27 Express capacity in liters and milliliters.

4.28 Identify linear equivalencies using metric measures (10mm 1cm).

4.29 Count change up to $10.00.

4.30 Add and subtract time using hours and minutes.

4.31 Measure and draw angles using a protractor.

Extensions

4.75 Prepare a personal and/or family budget showing income and amount to be allotted for each budget item.

GEOMETRY

Basic Skills

5.1 Identify models of spheres, cones, cylinders, cubes and pyramids.

5.2 Identify: point, line, line segment, parallel lines, perpendicular lines and intersecting lines.

5.3 Identify congruent figures and corresponding parts.

5.4 Identify center, diameter and radius of a circle.
5.5 Identify quadrilaterals (square, rectangle, parallelogram, trapezoid and rhombus).
5.6 Find the perimeter of triangles and quadrilaterals.

Developmental Skills

5.25 Draw a circle, triangle, square, rectangle, parallelogram and one additional quadrilateral.
5.26 Identify line of symmetry.
5.27 Locate the name points on a grid (ordered pair).
5.28 Identify acute, obtuse and right angles.
5.29 Find the area of a square, rectangle and triangle.

Extensions

5.75 Analyze the relationship between the circumference of a circle and its diameter.
5.76 Given two or more figures with the same perimeter, compare their areas.

PROBABILITY AND STATISTICS

Developmental Skills

6.25 Use a simple chart, table or graph to find information.
6.26 Find the mean (average) of five (or less) two-digit numbers.

Reading

GRADE 6

WORD RECOGNITION

Note: Word recognition skills for grades 4, 5 and 6 are essentially the same. The vocabulary and complexity of words will increase the level of difficulties from context clues.

Basic Skills

1.1 Extend the use of context clues to determine the meaning of a new word.
1.2 Select the correct compound word to substitute for a phrase.
1.3 Select the correct synonym for a given word or phrase.
1.4 Select the correct antonym for a given word or phrase.
1.5 Select the correct homonym for a given word or phrase.
1.6 Select the word or phrase that best describes the appropriate meaning of the underlined homograph in the sentences (e.g., tear, wind).
1.7 Select the correct meaning for the word with a prefix or suffix in a sentence.
1.8 Select the vocabulary word that best completes a sentence.
1.9 Select the appropriate definition for a multimeaning word in a sentence.
1.10 Complete analogies using the vocabulary at this instructional level.
1.11 Choose the word that rhymes with the phonetic spelling of the unfamiliar word.
1.12 Choose the correct meaning for the suffix of a word in a sentence.
1.13 Choose the correct meaning for the prefix of a word in a sentence.

Developmental Skills

1.25 Maintain and extend fluency in oral and silent reading.
1.26 Divide words into syllables using VC/CV, V/CV, and VC/V patterns.
1.27 Compose sentences to demonstrate the multiple meanings of a given word.

Extensions

1.75 Create analogies from vocabulary words.
1.76 Compose stories using new vocabulary words.
1.77 Participate in charades to demonstrate antonyms
1.78 Create and monitor a hangman game using new vocabulary words.
1.79 Circle given vocabulary words in a word search puzzle.
1.80 Create a word search puzzle using instructional level vocabulary words.

COMPREHENSION

Basic Skills

2.1 Identify the stated or implied main idea of a selection.
2.2 Recall details directly stated in a selection.
2.3 Recall sequence of events in a selection.
2.4 Predict a logical outcome after reading a portion of a selection.
2.5 Identify the setting time and place within a selection.
2.6 Distinguish between fact and opinion in a selection.
2.7 Distinguish between real and unreal actions or events.
2.8 Select the word or phrase that best describes the emotion or mood of a character.
2.9 Identify a cause and effect relationship within a given selection.
2.10 Select the sentence or phrase which best describes an inference, conclusion or generalization from a selection.
2.11 Identify literal meaning of figurative language.
2.12 Interpret punctuation (marks punctuation marks as clues to meaning).
2.13 Identify the word(s) to which the pronoun refers.

Developmental Skills

2.25 Recognize and understand figurative language (e.g., simile, metaphor, idiom).
2.26 Recognize personification in a selection.
2.27 Hear a variety of materials read daily.
2.28 Read books for pleasure.
2.29 Participate in choral reading activities.
2.30 Read a prepared selection orally.
2.31 Recognize novels, short stories, dramas, mysteries, diaries and poetry as types of literature.
2.32 Distinguish between fiction and nonfiction.
2.33 Identify the elements of a story: plot, climax, setting and character traits.
2.34 Compose sentences demonstrating alliteration.
2.35 Distinguish between types of fiction (e.g., realistic, historical, biographical and science fiction; myths, fables, folklore and fairy tales).
2.36 Write directions in sequence.
2.37 Critically evaluate propaganda (e.g., bandwagon, testimonial, transfer, emotion words, name calling, repetition).
2.38 Interpret the use of an apostrophe.
2.39 Determine the author's purpose for given passage.

Extensions

3.75 Draw a map with a legend.
3.76 Create visual materials (graphs, charts, filmstrips, transparencies, etc.) to support a point.
3.77 Locate and read information independently.
3.78 Share research through art such as pictorial time lines, paper mache, collages, relief and land form maps.
3.79 Share research by creating a cassette recording.

LISTENING

Basic Skills

4.1 Follow oral directions.
4.2 Identify the topic (subject) after listening to a story.
4.3 Recall details after listening to a story.
4.4 Sequence events after listening to a story.
4.5 Evaluate a spoken statement as fact or opinion.
4.6 Create a report using a computer software program.
4.7 Evaluate propaganda in advertising.
4.8 Write a dictated sentence.
4.9 Identify an oral sentence as a statement, question, command or exclamation.
4.10 Determine the author's purpose when listening to stories and chapters read by the teacher.

Developmental Skills

4.25 Separate essential details from nonessential details.
4.26 Identify the accented syllables in words.
4.27 Follow a five-step series of directions in sequence.
4.28 Repeat or write a series of letters or numbers given orally (up to eight) after hearing them once.
4.29 Apply listening skills by attending to the speaker.
4.30 Determine mood when listening to prose or poetry.
4.31 Illustrate the story element of characters, setting etc.

Extensions

4.75 Complete an open-ended story.
4.76 Tell a story using a dialect from other geographical areas.
4.77 Take notes from a short lecture or speech.

2.40 Distinguish between the topic and the main idea of a selection.
2.41 Identify the topic sentence and supporting details within a selection.
2.42 Select the correct sequence of four given statements after reading a selection.

Extensions

2.75 Visualize and draw the details given in a descriptive paragraph.
2.76 Practice sustained silent reading at an independent level.
2.77 Dramatize a reading selection.
2.78 Share a story through art.
2.79 Recognize and evaluate the author's use of humor.
2.80 Write causes when given an effect.
2.81 Write facts and opinions about stories and advertisements.
2.82 Interpret cartoons.
2.83 Write captions for pictures.
2.84 Write headlines for articles.
2.85 Compose figurative language using similes, metaphors and idioms.
2.86 Unscramble words to create a meaningful sentence.
2.87 Express the feelings inferred in literary selection.

STUDY SKILLS

Basic Skills

3.1 Follow written directions.
3.2 Locate information using a title page, table of contents, glossary and index.
3.3 Indicate the correct resource material to locate specific information in a magazine, newspaper, dictionary, encyclopedia or atlas.
3.4 Alphabetize a list of words to the third letter.
3.5 Use guide words to locate entry words.
3.6 Locate information using a dictionary, encyclopedia and telephone directory.
3.7 Interpret maps, charts, tables, graphs, diagrams, illustrations and cartoons.
3.8 Outline through main topic, subtopic and details.

Developmental Skills

3.25 Locate information using a bibliography, footnote, newspaper, magazine, atlas, almanac, thesaurus and card catalog.
3.26 Summarize by recalling, listening and organizing information on note cards.
3.27 Adjust reading rate to purpose and to difficulty of the material.

ORAL COMMUNICATION

Basic Skills

5.1 Tell a story in chronological order.

5.2 Introduce others properly.

5.3 State six essentials of reporting an event (who, what, when, where, why and how).

Developmental Skills

5.25 Change meaning by changing voice inflection and tone.

5.26 Speak in standard English.

5.27 Practice social courtesies in discussions and conversations.

5.28 Organize material for a presentation.

5.29 Present a short speech using notes.

5.30 Select appropriate topics of conversation and discussion.

5.31 Ask appropriate questions to gain information.

5.32 Participate in creative oral activities such as panels, role play, pantomime, impromtu speeches, debates, persuasive speeches or other dramatic activities.

5.33 Use eye contact, good posture and appropriate gestures in speaking.

5.34 Practice fluency and ease while speaking.

5.35 Adjust voice volume to the social setting.

5.36 Obtain information or assistance by using the telephone.

5.37 Read or recite poetry effectively.

Extensions

5.50 Speak from an outline.

5.51 Tape and evaluate an oral presentation.

5.52 Tell an original story.

Social Studies

GRADE 6

CULTURES

Basic Skills

1.1 Identify the basic needs shared by all people (food, clothing, shelter).

1.2 Identify differences among cultural groups of the world (ways of meeting basic needs, tools, ideas, language, behavior, social institutions).

1.3 Identify the social institutions that all cultures form (family, education, religion, economy, government).

1.4 Identify similarities among various groups within a pluralistic society (common language, government, technology and nationalism, or pride in country).

1.5 Identify differences among various groups within a pluralistic society (ways of meeting basic needs, tools, attitudes, values and beliefs, customs).

1.6 Identify problems of prejudice and discrimination associated with race, sex, or ethnic origin in the world (slums and ghettos, lost talent, unhappiness, violence, etc.).

1.7 Define: value, attitude, belief, prejudice, discrimination, social institution, society, pluralistic society, culture, ethnic, immigrant, technolgy.

Developmental Skills

1.25 Recognize that different cultures satisfy their basic needs for food, clothing and shelter in diverse ways.

1.26 Identify reasons for cultural similarities (geography, climate, historical accident or heritage, technological advances, especially in the media).

1.27 Identify reasons for cultural differences (geography, climate, historical accident, heritage).

1.28 Identify conditions and events that slow down the process of social and cultural change (physical or social isolation, restricted information, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.29 Identify conditions and events that speed up the process of social and cultural change (geographic location, natural and human resources, multicultural contacts, changing technology, information dissemination, attitudes, values, beliefs, laws, economic conditions, disasters, war).

1.30 Explain how the problems of prejudice and discrimination affect housing, education, employment and group relations in different countries of the world.

Extensions

1.75 Demonstrate knowledge and understanding of cultural similarities and differences through discussion, writing, art, music, drama, dance, simulation activities, comparisons, etc.

1.76 Explain how geographic and climatic conditions, historical events, heritage and technological advances create cultural similarities and differences.

1.77 Apply problem-solving strategies to current problems of society (e.g., prejudice, discrimination, poverty, crime, and educational and family weaknesses).

1.78 Explain how such factors as geographic location, natural and human resources, technology, information, attitudes, values, beliefs, laws, government policies, economic conditions, disasters and war impede or facilitate social change.

GOVERNMENT

Basic Skills

2.1 Define rights and liberties; give three examples of rights and liberties enjoyed by U.S. citizens (e.g., freedom of religion, of speech, of press); and list the ways we guarantee rights and liberties (rules, laws, Constitution, Bill of Rights).

2.2 Give reasons why laws are needed in all societies and recognize the consequences for any society when members disobey rules and laws. (Laws establish and maintain order by putting limits on personal behavior and on the behavior of certain groups and institutions.)

2.3 Explain why groups need leaders (for direction, for decision-making, for an orderly society, for communication, for representation of the group, for continuity, etc.).

2.4 Recognize responsibilities associated with leadership (define goals and tasks, organize, make decisions, inspire followers, etc.) and describe qualities a good leader needs to meet those responsibilities (sense of purpose, vision, organization, decisiveness, charisma, etc.).

2.5 Identify procedures for choosing government leaders in different countries (popular or party election, inheritance, seizure, etc.).

2.6 Identify the different forms of government (e.g., democracy, party-rule communism, monarchy, dictatorship).

2.7 Define: democracy, constitution, laws, government, president, prime minister, monarch, dictator.

Developmental Skills

2.25 Explain the importance of recognizing human rights in all societies.

2.26 Identify the responsibilities that individuals and nations have to others in the world.

2.27 Explain why different countries have differing expectations and responsibilities for their leaders.

2.28 Recognize the characteristics of different forms of government (type of leader, type of law-making body, the people's rights and liberties).

2.29 Explain why different forms of government develop.

2.30 Identify the three branches of the United States government and their functions, and identify branches of different forms of government that serve similar functions (e.g., president, monarch, premier, prime minister, congress, parliament, etc.).

Extensions

2.75 Compare the rights of individuals within the United States (e.g., free speech vs. protection from slander).

2.76 Compare human rights in our country with those of other nations.

2.77 Examine the consequences of nations failing to abide by international agreements.

2.78 Contrast the power and responsibilities of different leaders of the world.

2.79 Compare and contrast the philosophies of two different forms of government.

2.80 Predict the changes that might occur if the world community worked for its common good.

ECONOMICS AND RELATED SUBJECTS

Basic Skills

3.1 Identify elements influencing economic choices made by individuals and groups (costs, benefits, consequences).

3.2 Identify the factors of production (human resources, or labor, natural resources, capital resources, or tools and machines).

3.3 List environmental problems (e.g., pollution, depletion, erosion) and identify possible solutions for each.

3.4 Identify social changes (e.g., civil rights, women's liberation, etc.) and changes in technology (e.g., computers, robots, etc.) which have affected career opportunities and choices.

3.5 Define: human resources, natural resources, capital resources, interdependency.

Developmental Skills

3.25 Explain how costs, benefits and consequences influence the economic choices made by individuals and groups.

3.26 Explain how costs, benefits and consequences are influenced by the availability of human, natural and capital resources.

3.27 Generate a list of new careers or of careers that have disappeared due to changes in attitudes and technology.

3.28 Give examples which illustrate the concept of interdependency.

3.29 Identify economic institutions such as banks, savings and loans, credit unions, etc.

Extensions

3.75 Create situations that show the interaction among the elements which influence economic choices.

3.76 Analyze specific economic choices in terms of costs, benefits and consequences.

3.77 Generate possible new solutions to a given environmental problem.

3.78 Evaluate the effectiveness of possible solutions to environmental problems.

3.79 Predict how future technology and attitudes will affect career choices.

3.80 Generate examples which illustrate the concept of global economic interdependency in terms of human, natural and capital resources.

3.81 Explain how economic institutions function and how they influence the economy.

REFERENCE SKILLS

Basic Skills

4.1 Identify and use information found on maps and globes and in atlases, glossaries, encyclopedias and almanacs.

4.2 Use tables of content and indexes to find information in reference materials.

4.3 Use a horizontal time line to gain information.

4.4 Use a legend to interpret symbols on a map.

4.5 Use a scale to compute distance on a map.

4.6 Use compass directions (N, S, E, W, NE, NW, SE, SW) to locate places on a map.

4.7 Locate and label the world's continents and oceans on a map.

4.8 Recognize that lines of latitude relate to climate and thus different zones of latitude affect the lives of people differently.

4.9 Compare time among the different time zones of the continental United States.

4.10 Define: atlas, almanac, glossary, table of contents, index, scale, map legend, latitude, longitude, time zone, time line, decade, century, mountain, plains, plateau, bay, peninsula, island, continent, ocean, equator, hemisphere, geographic region, natural resources, physical map, political map.

Developmental Skills

4.25 Interpret single line graphs, double line graphs, double bar graphs, etc.

4.26 Compare maps of identical places shown in different scales.

4.27 Identify the different kinds of maps (political, physical, road, population, rainfall, product, etc.).

4.28 Compare geographic regions using different kinds of maps (physical, population, rainfall, product, etc.).

4.29 Locate places by latitude and longitude on a map or globe.

4.30 Associate continents and oceans of the world with the appropriate hemispheres.

4.31 Analyze the effect of latitude on life in different zones of latitude (climate, arable land, water supply, animal life, vegetation, food products, etc.).

4.32 Use a time zone map to calculate time in another part of the world.

Extensions

4.75 Use three or more types of reference materials to produce a report.

4.76 Write a paragraph summarizing information taken from tables, charts, graphs, etc.

4.77 Organize information into chart, graph or table form.

4.78 Make use of information on a time line in taking notes, outlining, making graphs, writing reports, etc.

4.79 Determine relative sizes of different states or countries by using a map scale.

4.80 Create a scaled map and label it with a title, legend and scale.

4.81 Use different kinds of maps (physical, road, population, rainfall, etc.) to predict probable land use of any given area.

4.82 Locate and use the International Date Line to interpret time zones.

4.83 Calculate the total traveling time, given departure and arrival times at specified points in different time zones.

Science

GRADES 4-6

These science skills have been developed for students in grades four, five and six. The Basic Skills should be mastered by all students by the end of the sixth grade. The Developmental Skills are designed to be introduced and taught by the end of the sixth grade, but mastery may not be attained by all students. Extension Skills are offered to expand the curriculum and to provide for enrichment.

Since the choice of textbooks is the responsibility of the local district, it is not feasible to assign these skills to a particular grade level. School administrators and teachers should determine how these skills fit into the fourth, fifth and sixth grade curriculum in science; however, local textbook adoption will also be an important factor in grade placement of many of these skills.

Stars (*) indicate those skills that will be tested at the end of the sixth grade on the Minimum Performance Testing program!

Science Process Skills

Basic Skills

1.1 Choose the correct sequence of the scientific method: statement of the problem, formulation of the hypotheses, procedure, collection of data and conclusions.

1.2 Identify and interpret data presented in charts, graphs and illustrations, and draw inferences from these data.

Developmental Skills

1.25 Identify the scientific processes in the given experiment(s).

1.26 Measure temperature, mass, length and volume using instruments of the metric system.

1.27 State the purpose of controlling variables during experimentation.

1.28 Identify safety rules in using laboratory equipment.

LIVING AND NONLIVING

Basic Skills

* **2.1** Identify characteristics of living and nonliving matter.

2.2 Classify matter as living or nonliving.

Developmental Skills

2.25 Theorize as to why other planets in our solar system cannot support life as we know it.

Extensions

2.75 Create a balanced system of living and nonliving matter (e.g. terrarium).

2.76 Illustrate the differences between the movement of living things and nonliving things.

HEREDITY AND CHANGE

Basic Skills

* **3.1** Choose the correct definition of heredity and the following terms associated with heredity and change: genes, chromosomes, sex cells, DNA (Deoxyribonucleic Acid) and fossils.

Developmental Skills

3.25 Match these items with their definitions: hybrid, trait, generation, mitosis, meiosis, mutation, dominant and recessive genes.

3.26 Infer that traits are passed from parent to offspring through genes located on chromosomes.

3.27 Explain the difference between dominant and recessive genes.

3.28 List common fossils of plants and animals in Arkansas.

3.29 Identify career choices in genetics, geology and paleontology.

Extensions

3.75 Research the results of abnormal cell division (e.g. Down's Syndrome).

3.76 Construct and use a Punnett Square to predict possible gene combinations of an offspring.

3.77 Determine the probability of an individual inheriting a certain trait.

3.78 Trace the development of the horse through geologic time.

HUMAN BODY

Basic Skills

4.1 Identify nine of the human body systems (respiratory, skeletal, muscular, circulatory, digestive, nervous, excretory, endocrine, and reproductive.

***4.2** Identify the function of the nine body systems listed in skill 4.1.

4.3 Match the major organs to the appropriate body system.

4.4 Classify common substances as depressants, stimulants and hallucinogens.

Developmental Skills

4.25 Theorize what might occur if one of the body systems ceased to function.

4.26 Recognize the problems and effects of substance abuse (drugs, tobacco and alcohol).

4.27 Formulate a system of good health care.

4.28 Dissect a small mammal and observe the systems.

4.29 Identify career choices in health.

Extensions

4.75 Dissect and label a major organ.

4.76 Compare and contrast heartbeats of students to that of a small animal.

4.77 Research the long-term effects of chemical dependency.

4.78 Compile a list of diseases caused by microorganisms (virus, bacteria and fungus) and a list of diseases that develop because of genetic problems.

4.79 Identify the integumentary system as a body system.

DEVELOPMENT OF PLANTS AND ANIMALS

Basic Skills

***5.1** Choose the correct sequence of the developmental stages in the life cycle of a plant or animal.

Developmental Skills

5.25 Germinate seeds in the classroom; observe and record growth.

5.26 Depict the changes that occur from fertilization to the birth of a mammal.

Extensions

5.75 Perform an experiment by raising an animal in which one will observe and record the growth stages.

5.76 Isolate variables that would have a positive or negative impact on the life cycle of plants and animals.

PLANT AND ANIMAL BEHAVIOR

Basic Choices

* **6.1** Choose the definition of the following terms as they apply to plant and animal behavior: stimulus, instinct, response and conditioning.

6.2 Match examples of the behavior to the above terms.

Developmental Skills

6.25 Explain how behaviors contribute to an organism's survival.

6.26 Identify career choices in botany, zoology and psychology.

Extensions

6.75 Conduct experiments dealing with conditioning responses.

6.76 Observe and record specific examples of the above behaviors observed in his/her pet.

PLANTS

Basic Skills

7.1 Identify the needs of plants (e.g., water, sunlight, carbon dioxide, oxygen, minerals, soil, etc.)

* **7.2** Identify parts of a flowering plant using an illustration.

* **7.3** Match the parts of the plant to the appropriate function.

7.4 Classify illustration of plants as algae, fungus, ferns, mosses and seed plants.

7.5 Choose the definition of photosynthesis

Developmental Skills

7.25 Identify plants that are harmful to people (e.g., poison ivy, house plants.)

7.26 Dissect a flower.

7.27 Recognize and explain monocots and dicots.

7.28 Distinguish between deciduous and coniferous plants.

7.29 Identify and distinguish between oaks, hickories and pines.

7.30 List differences between perennials and annual plants.

7.31 Recognize how man uses plants for food, housing, clothing, medicine and art.

7.32 Identify career choices in botany.

Extensions

7.75 Examine a tree stump and indicate some characteristics of its life cycle from the annual rings.

7.76 Grow different types of plants and observe the various stages of growth under controlled variables.

VERTEBRATES AND INVERTEBRATES

Basic Skills

8.1 Choose the correct definition of vertebrate and invertebrate.

*** 8.2** Classify illustration of common animals as vertebrate or invertebrate.

Developmental Skills

8.25 Identify the major vertebrate classes and invertebrate phyla. (Vertebrate classes—fish, amphibians, reptiles, birds, mammals and invertebrate phyla—sponges, coelenterates, flat worms, roundworms, segmented worms, mollusks, echinoderms and arthopods).

8.26 Identify career choices in biology.

Extensions

8.75 Collect and categorize vertebrates and invertebrates.

8.76 Research the life cycle of a vertebrate or invertebrate.

8.77 Identify common birds, fish, reptiles and mammals of Arkansas.

8.78 Determine the economic value of invertebrates (e.g., mollusks and crustaceans for the fishing industry).

FOOD CHAINS

Basic Skills

9.1 Choose the definition of a food chain.

*** 9.2** Distinguish between producer and consumer in a food chain which includes the parasite-host and predator-prey relationships.

9.3 Select the correct food chain from several examples.

Developmental Skills

9.25 Describe the flow of energy in a food chain (one-way and a loss of energy at each step).

9.26 Apply the knowledge of the food chain in order to determine the primary producer.

9.27 Analyze a diagram in order to relate the oxygen and carbon dioxide cycles to the food chain.

9.28 Identify career choices in wildlife management.

Extensions

9.75 Trace a hazardous chemical through an animal food chain.

9.76 Research how weather, scarcity of food, enemies and other limiting factors influence the food chain.

9.77 Investigate the plight of the American Indian after the buffalo was eliminated from the western plains.

ENVIRONMENT

Basic Skills

* **10.1** Choose the definition of the following environmental terms: ecosystem, habitat, community, biome, cycles, population, adaptation and extinction.

Developmental Skills

10.25 Construct a terrarium.

10.26 Recognize a diagram of the carbon-oxygen cycle.

10.27 Report on the endangered species in the United States and Arkansas.

10.28 Compare and contrast the organisms and climate of the eight biomes: tundra, grasslands, deserts, tropical rain forest, temperate forest, taiga, fresh water and marine.

10.29 Distinguish between natural and man-made (built) environments from a group of pictures.

10.30 Identify career choices in ecology.

Extensions

10.75 Explain how different animals are adapted to their natural habitat.

10.76 Illustrate how pollution could upset the ecosystem.

10.77 Predict on a graph what the world population will be in the year 2000 AD based on projected growth rate figures.

ROCKS, MINERALS AND FOSSILS

Basic Skills

* **11.1** Identify three major types of rocks by characteristics and origin (sedimentary, igneous and metamorphic).

11.2 Give examples of the three major types of rocks (e.g., limestone-sedimentary, marble-metamorphic, granite-igneous).

* **11.3** Choose a definition of mineral, rock and fossil and recognize relationships that exist among them.

Developmental Skills

11.25 Explain how we know that much of the interior United States was once under an ocean.

11.26 Depict the three types of rock and their characteristics.

11.27 Describe how fossils help a scientist learn more about the earth's past life.

11.28 Identify career choices in geology and archaeology.

Extensions

11.75 Collect and classify rocks from your particular area.

11.76 Locate important minerals in Arkansas.

11.77 Create a fossil with clay, plaster of Paris, etc.

CHANGES IN THE EARTH'S CRUST

Basic Skills

***12.1** Identify definitions for the following factors that change the earth's crust: plate tectonics, continental drift, sea floor rifts and collisions, earthquakes and volcanoes.

12.2 Identify wind and water erosion.

Developmental Skills

12.25 Look for evidence of water erosion following a heavy rain and discuss your findings.

12.26 Locate earthquake zones on a map of Arkansas.

12.27 Theorize why earthquakes occur along plate lines.

12.28 Identify safety actions to take during earthquakes.

12.29 Discuss how wind erosion affects farmers.

Extensions

12.75 Construct a stream box to demonstrate water erosion.

12.76 Research the differences in the formation of the Ouachita Mountains, the Ozark Mountains, the Arkansas River Valley, Coastal Plain, Delta and Crowley's Ridge.

WEATHER

Basic Skills

***13.1** Identify the following weather terms: highs, lows, fronts, clouds, jet stream, and relative humidity.

***13.2** Identify weather instruments and interpret their readings (thermometer, barometer, hygrometer, wind guage, rain gauge and radar).

13.3 Classify clouds according to the three basic kinds (cirrus, stratus, and cumulus).

Developmental Skills

13.25 Collect and mount newspaper weather maps. Record expected and actual weather conditions.

13.26 Make a temperature graph for a period of time.

13.27 Explain how various factors affect the weather (clouds, mountains, oceans, vegetation and cities).

13.28 Identify safety precautions to take during storms.

13.29 Name and locate the layers of the atmosphere (troposphere, stratosphere, mesosphere, thermosphere).

13.30 Identify career choices in meterology.

Extensions

13.75 Construct various weather instruments.

13.76 Explain and demonstrate how the earth's tilt and orbit cause seasonal changes.

UNIVERSE

Basic Skills

*14.1 Choose the definition of the following terms: star, solar system, comet, planet, satellite and asteroid.

14.2 Name the planets in their usual order from the sun. Note: Pluto will return to the ninth position in 1999.

Developmental Skills

14.25 Make a model of the solar system.

14.26 Demonstrate how lunar and solar eclipses occur.

14.27 Demonstrate phases of the moon.

14.28 Identify career choices in astronomy.

Extensions

14.75 Research theories of the origin of the moon.

14.76 Set up a solar system using an appropriate scale.

14.77 Design a space craft.

NATURAL RESOURCES

Basic Skills

15.1 Choose the definition of natural resources.

*15.2 Identify natural resources and classify them as renewable and nonrenewable (e.g., water, forest, soil, minerals, wildlife and fossil fuels).

15.3 Identify the three fossil fuels: coal, oil and natural gas.

Developmental Skills

15.25 Determine how each of the fossil fuels is formed.

15.26 Investigate ways to conserve natural resources (e.g., trees, wildlife, fossil fuels, ores and water).

15.27 List the needs of wildlife and the problems they encounter meeting their needs.

15.28 Identify career choices in conservation.

Extensions

15.75 Recycle paper scraps to make new paper.

15.76 Theorize what your daily life would be like without petroleum products.

15.77 Predict how the United States' foreign policy could be dictated by the need to obtain scarce resources.

15.78 Compile a list of ways that forest fires effect our natural resources (forest, air and water).

POLLUTION

Basic Skills

***16.1** Recognize sources of air pollution (automobiles, power plants, industry and natural sources), sources of water pollution (oil slicks, sewage, industrial waste, pesticides and siltation), and sources of land pollution (visual pollution, solid waste and poor usage of land).

Developmental Skills

16.25 Show the sources of air and water pollution in the United States with a circle or bar graph.

16.26 Theorize what your community would be like without pollution controls.

16.27 Determine the impact of pollution on the balance of nature.

16.28 Identify the career choices in pollution abatement and environmental health sciences.

Extensions

16.75 Devise an experiment for measuring air pollution in an area.

16.76 Devise an experiment for measuring water impurities in an area.

16.77 Research one of the following topics: greenhouse effect, acid deposition, etc.

16.78 Measure and graph the pH of the rain water in your area.

WATER CYCLE

Basic Skills

***17.1** Choose the definition of precipitation, condensation and evaporation and identify them on a water cycle diagram.

Developmental Skills

17.25 Locate information about transpiration in plants and sketch the leaf stomata. Determine what part transpiration plays in the water cycle.

Extensions

17.75 Make your own water cycle through experimentation.

17.76 Research the significant effects of water on our daily life.

17.77 List personal actions that help to conserve water.

MATTER

Basic Skills

18.1 Choose the definition of matter.

18.2 Identify the three states of matter found on earth (liquid, solid and gas).

***18.3** Distinguish between physical and chemical change.

18.4 Measure states of matter using the metric system.

Developmental Skills

18.25 Perform experiments to demonstrate both physical and chemical changes.

18.26 Illustrate the three states of matter using particle arrangement (liquid, solid and gas).

18.27 Discuss the fourth state of matter (i.e., plasma)

18.28 Locate and identify subatomic particles within the structure of the atom (electron, proton and neutron).

18.29 Identify career choices in chemistry.

18.30 Identify career choices in physics or chemistry.

Extensions

18.75 Gather and label examples of chemical and physical changes (e.g., rusty nails).

18.76 Perform an experiment tracing water through the three states of matter. Chart the temperature changes.

18.77 Compare the temperature at which alcohol and water change from one state of matter to another.

ELEMENTS, MIXTURES AND COMPOUNDS

Basic Skills

***19.1** Select the definition of elements, mixtures and compounds.

19.2 Identify common substances as elements, mixtures or compounds.

Developmental Skills

19.25 Prove that a mixture can be separated by physical means (e.g., evaporating salt-water).

19.26 Recognize and write formulas for simple compounds.

19.27 Compile a list of common elements, mixtures and compounds found at home or school that could be harmful if misused (fire hazard, strong acid or base etc.).

Extensions

19.75 Combine two elements to make a compound.

19.76 Demonstrate crystallization.

ACIDS AND BASES

Basic Skills

20.1 Choose a definition of acid and base.

20.2 Identify common substances as acid or bases.

20.3 Determine if a substance is an acid or a base using litmus paper.

Developmental Skills

20.25 Define an ion in relation to acids and bases.

20.26 Use indicators to identify acids and bases.

20.27 Interpret the pH scale.

Extensions

20.75 Compile a list of things in which the level of acid is a major concern (things you drink or wash with).

20.76 Prepare a pH scale and chart the appropriate acid-base level of various substances.

AIR

Basic Skills

***21.1** Identify the major gas components of air and their proportions.

21.2 Recognize that air has weight and exerts pressure.

Developmental Skills

21.25 Theorize the advantages and disadvantages if the earth's air were all oxygen.

21.26 Predict one's ability to perform physical activities at higher altitudes.

Extensions

21.75 Devise an experiment for measuring the amount of oxygen in the air.

21.76 Devise an experiment to verify that atmospheric air exerts pressure.

SOURCES OF ENERGY

Basic Skills

*22.1 Match the source of energy to an illustration of its use (i.e., oil, natural gas, coal, nuclear, solar, water, wind, food, alcohol and geothermal).

Developmental Skills

22.25 Determine how electricity is made from the various sources of energy.

22.26 Explain and demonstrate kinetic and potential energy as it relates to the sources of energy.

22.27 Identify the advantages or disadvantages of the use of each source of energy (i.e., oil, natural gas, coal, nuclear, solar, water, wind and geothermal).

22.28 Identify career choices in the energy field.

Extensions

22.75 Trace the following energies to the sun: oil, natural gas, coal, water and wind.

HEAT

Basic Skills

*23.1 Distinguish among the three ways in which heat travels (i.e., conduction, convection and radiation).

23.2 Distinguish between heat and temperature.

Developmental Skills

23.25 Compare a set of objects with respect to their ability to conduct heat.

Extensions

23.75 Construct experiments which demonstrate the three methods of heat transfer.

23.76 Develop an experiment to test the temperature changes of insulated and noninsulated materials.

ELECTRIC CIRCUITS

Basic Skills

24.1 Recognize a completed electrical circuit using a light bulb.

*24.2 Trace the electron flow through a direct current circuit.

Developmental Skills

24.25 Compare the advantages and disadvantages of series circuits.
24.26 Explain an electrical short and cite the dangers (electrocution and fire damage).
24.27 Calculate power usage.
24.28 Identify career choices in electrical energy.

Extensions

24.75 Construct a parallel and series circuit.
24.76 Determine how fuses and breakers prevent electrical fires.
24.77 Identify ways to prevent fire hazards from electrical appliances.

ELECTROMAGNETISM

Basic Skills

25.1 Choose a definition of magnetism.
***25.2** Recognize a properly constructed electromagnet.
25.3 Predict the increased power and or coils of an electromagnet.

Developmental Skills

25.25 Determine the difference between a soft steel (nail) and hard steel (bolt) electromagnets.
25.26 Determine a number of uses for electromagnets.
25.27 Explain how electromagnets are used in electric motors.

Extensions

25.75 Construct an electromagnet.
25.76 Construct an electric motor.

ELECTRICAL INSULATORS AND CONDUCTORS

Basic Skills

26.1 Choose the definition of insulators and conductors.
***26.2** Identify materials as insulators or conductors (e.g., rubber, plastic, copper, etc.).

Developmental Skills

26.25 Determine how safety dictates the size of wire and the amount of insulation needed.

Extensions

26.75 Develop an experiment for determining good and poor conductors.

CONCAVE AND CONVEX LENSES

Basic Skills

*27.1 Distinguish between concave and convex lenses.

27.2 Trace the paths of light rays through concave and convex lenses.

Developmental Skills

27.25 Demonstrate the function of the human eye lens.

27.26 Find instruments which use concave or convex lens.

Extensions

27.75 Determine how convex and concave lenses correct nearsightedness and farsightedness.

27.76 Construct a smoke chamber in order to observe light rays going through a convex or concave lens.

REFLECTION AND REFRACTION OF LIGHT

Basic Skills

*28.1 Identify reflection and refraction.

28.2 Trace a light ray during reflection and refraction.

Developmental Skills

28.25 Trace the path of light through various water and glass shapes.

28.26 Explain how refraction separates the visible light colors in a prism.

28.27 Explain the visibility of the moon (reflected light from the sun).

28.28 Identify career choices in physics and optics.

Extensions

28.75 Devise an experiment for proving that the angle of incidence is equal to the angle of reflection.

28.76 Determine how refraction causes the redness of the sunset and of the sunrise.

SOUND

Basic Skills

29.1 Choose the definition of sound waves.

29.2 Identify the speed of sound waves.

Developmental Skills

29.25 Explain the difference between the volume, pitch and frequency of sound.

29.26 Compare how sound travels through different types of matter.

Extensions

29.75 Explain how bats are able to locate insects using sound waves.

29.76 Explain why some animals are able to hear sounds that people cannot hear.

MACHINES

Basic Skills

***30.1** Identify force, energy, mass, inertia, work, friction and gravity.

***30.2** Identify simple and compound machines.

Developmental Skills

30.25 Classify machines as simple or compound.

30.26 Demonstrate the use of simple machines.

30.27 Identify career choices in engineering.

Extensions

30.75 Create a simple machine.

30.76 Predict what society might be like without the wheel.